Engineering PEARLS
Program for Engineering Access, Retention and LIATS Success

RESUME BOOK

Spring-Summer 2022

Foreword

PEARLS (Program for Engineering Access, Retention, and LIATS Success) is an initiative sponsored by the National Science Foundation (NSF) directed at helping bachelor's and master's level students in all engineering disciplines to successfully complete their study programs and transition into professional life.

The program provides students with individualized career mentoring, soft-skills training, research and internship/COOP opportunities, and peer-mentor activities to complement their education. Activities are integrated in a learning community where students, faculty, and university staff join efforts for the goal of maximizing student success.

Once again we present the PEARLS resume book, portraying the quality and talents of our students. The students featured in this edition have expressed their interest in expanding their formation as future engineers through research, internships, and/or COOP experiences. All of them have are at the junior or senior level, have highly competitive academic performance, and have complemented their preparation through special projects, research projects, and/or community service, forming a select group of competitive individuals.

Thank you for your openness for reviewing this document. We hope it not only helps you in the recruiting efforts, but also creates life-changing opportunities for our talented students and creates bridges between PEARLS and your organization.

Sincerely,

Dr. Manuel Jimenez
ECE Professor and
Engineering PEARLS Director

Contents

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Chemical Engineering

Name	Availability	
	Spring	Summer
• **Addison Velazquez Rovira**	✓	✓
• **Alexandra Ramos Figueroa**		
• **Alondra Fernandez Rivera**	✓	✓
• **Belma Sandoval Caraballo**		
• **Calleb Diaz Acebedo**	✓	✓
• **Daniela J. Rivera Cedeño**	✓	✓
• **Diamarys Salomé Rivera**	✓	✓
• **Gerardo Mena Fernandez**	✓	
• **Maria Lucca Torres**	✓	
• **Nolan Cruz Rivera**	✓	✓
• **Tamara Soto Hernandez**	✓	
• **Samir Espada Ortiz**	✓	✓

ADDISON VELAZQUEZ ROVIRA

P.O Box 791 Peñuelas, Puerto Rico

00624

addison.velazquez@upr.edu

OBJECTIVE	Undergraduate student looking for an internship position to gain skills that are essential in engineering career.
EDUCATION	University of Puerto Rico, Mayagüez Campus (2018-Present)
	Student from Chemical Engineering Department
	Expected graduation: May 2023
	GPA: 3.77
	Josefa Vélez Bauzá High School, Peñuelas Puerto Rico (2015-2018)
EXTRACURRICULAR ACTIVITIES	**Program for Engineering Access, Retention, and LIATS Success (Present-2018)**
	• Workshops, activities, and individualized mentoring for the career success
	Scientific Investigation Club (2018-2015)
	• Research in the chemistry area specifically with heavy metals
	• Compare the different heavy metal concentrations near and far of mangroves
	4-H Club Member (2018-2015)
	• To develop citizenship, leadership, responsibility and life skills
	Police Athletic League (2009-2018)
	• Organization to build character and gain leadership doing community service and voluntary work
	Material Advantage Bulldogs Camp 2018
	• Learned about science, technology, and engineering
	• Learned about different strength of concrete.
SKILLS & ABILITIES	• Leadership
	• Responsibility
	• Team-work ability
	• Computer Management
HONORS & AWARDS	Excellence Cup Award from High School (2018)
	Scholarship recipient of the Program for Engineering Access, Retention, and LIATS Success (ePEARLS)

Alexandra L. Ramos

Urb. Estancias del Rio, Tanamá St. #67, Aguas Buenas, PR
• 787-246-9789 • alexandra.ramos12@upr.edu •

EDUCATION

University of Puerto Rico-Mayagüez Campus, Mayagüez, Puerto Rico *Expected Graduation*: Dec 2021
Bachelor of Science in Chemical Engineering, Curricular Sequence in Applied Mathematics
GPA**: 3.83/4.00** ‖ Major GPA**: 3.83/4.00**

Cornell University, Ithaca, New York Jan-May 2018
Student in the College of Engineering

WORK & RESEARCH EXPERIENCE

Effect of NaCl Salt in Different Emulsions Types at Oil-Water Interface, University of Puerto Rico, Mayagüez, PR Aug 2019–Present
Undergraduate Research Student in Dr. Claribel Acevedo Group
- Shadowed and performed emulsion preparation experiments where nanoparticles of gold were heterogeneously functionalized with polar and non-polar groups and utilized to control the adsorption properties in the oil-water interface for enhanced oil recovery.
- Completed literature reviews and replicated experiments from different scientific studies to gain an understanding of the current known effects of NaCl salt in oil in water emulsions that contain a surfactant to gain laboratory skills.

ExxonMobil Research & Engineering, Spring, TX Aug 2020–Dec 2021
Real-time Optimization (RTO) Engineer
- Migrated the simplified energy real-time optimization model of a big scale manufacturing facility from **Visual MESA** to **ROMeo** modeling software in order to upgrade program features and maximize profit.
- Replatformed the ROMeo Modeling Coursework from the 6.1 version to 7.1 server and assisted in the virtualization of the course.

Self-Healing Polymers Reviving Lithium Metal Batteries, Stanford University, Stanford, CA June–Aug 2019
Undergraduate Research Student in Dr. Jian Qin Group
- Generated with **LAMMPS** software a molecular dynamics simulation model of a self-healing polymer network to study the mechanical properties and the effects of a polymer coating on a lithium metal anode, which will provide fundamental insight on designing safer and more efficient lithium-metal batteries.
- Developed visualization data of polymer using **OVITO**, used **Python** to envision and understand the different trends in potential energy to equilibrate the polymer, and performed autocorrelation calculations to obtain its viscosity and viscoelastic properties.

Thermal Expansivity Equation-of-State Model for Near- and Supercritical Conditions, University of Puerto Rico, Mayagüez, PR Aug 2017–Dec 2019
Undergraduate Research Student in Dr. Antonio Estévez Group
- Developed a thermodynamic model based on the Peng-Robinson equation of state (EOS) that obtains thermal expansivity experimental values of gases at high pressures which corrects predictions near critical point during natural convection phenomena.
- Correlated expansivity and Grashof number values at isobaric conditions with EOS model and NIST at the supercritical region.
- **Publication**: Ramos Figueroa, A. L.; Carreño-Chávez, R. A.; Estévez, L. A. Thermal expansivity of near- and supercritical fluids – Equation – of–state models and calculation for carbon dioxide and C1 to C4 normal alkanes. *J. Chem. Eng. Data*. **2019.** 64(5), 2126-2133.

Merck & Co, West Point, PA May–Aug 2018
Associate Specialist Process Engineer
- Developed vaccine product information spreadsheets where quality attributes were identified and incorporated into the process equipment design and composed User Requirement Specifications required to purchase customized formulation process equipment.
- Co-developed and performed vial filling troubleshooting experiments with the Center for Materials Science and Engineering to minimize the impact of aerosol generation in the pharmaceutical drug process, which reduced capital costs by a factor of **millions**.

LEADERSHIP EXPERIENCE

Professional Development Leader, American Institute of Chemical Engineering, University of Puerto Rico, Mayagüez, PR Dec 2019 – Present
- Coordinated various workshops in resume building, mock interview tips, peer essay reviews, REUs and LinkedIn.
- Created a month long mentorship program where first and second year ChemE students that have been studying remotely due to COVID-19 pandemic receive 1:1 mentoring to create a resume, obtain interview skills and participate in company mock interviews.

Engineering Fun Day, American Society for Engineering Education, University of Puerto Rico, Mayagüez, PR Nov 2019
- Organized and supervised a one-day engineering event where **350+** high school students from around Puerto Rico attended.
- Coordinated workshop about Chemical Engineering that involved personal experiences, Q&A sessions, critical information on how to apply to universities and hands on experiments where students enhanced teamwork and critical thinking skills.

SKILLS

Project Management, Terminal, MATLAB, Public Speaking, Organization, Microsoft Office

AWARDS & ACHIEVEMENTS

2019 ExxonMobil LOFT Scholarship, *ExxonMobil*	June 2019–Present
SAP Scholar, Stanford University, *Stanford University, Stanford, CA*	June–Ago 2019
Chemical Engineering Honor Roll, *University of Puerto Rico, Mayagüez, PR*	Jan 2018–Present
First Place Best Product and Presentation, *Weekend Design Challenge, University of Puerto Rico, Mayagüez, PR*	Sep 2018

ALONDRA N. FERNÁNDEZ RIVERA

(787) 988-5876
ALONDRA.FERNANDEZ2@UPR.EDU

OBJECTIVE
Seeking an opportunity to acquire new knowledge, skills and experiences so I can apply them in my professional career and become a helpful and capable working member of society.

ACADEMIC PREPARATION

August 2018 to Present

University of Puerto Rico
Mayagüez Campus
Chemical Engineering
3.50 GPA
Expected Graduation Date: 2024

August 2016 – May 2018

Dr. Gilberto Concepción de Gracia
(High School)
Carolina, Puerto Rico

EXPERIENCE

December 2019 – March 2020

Sizzler
Mayagüez, Puerto Rico
Cashier

December 2017 – July 2018

Great Concepts
Promotor

AWARDS
Member and scholarship recipient of the EPearls UPRM program.
Member of the American Institute of Chemical Engineers (AIChE)

SKILLS
- Efficient use of computer programs like: Power Point, Word, Excel, AutoCAD, Python language
- Team work
- Able to work under pressure
- Organization
- Time Management
- Problem solving
- Attention to details

CLASSES

Algorithms and Computer Programing	General Chemistry	Organic Chemistry
Engineering Graphics	Physics	Calculus 1,2 and 3
Micro Economy	Analytical Chemistry	

BELMA DEL MAR SANDOVAL CARABALLO

(787)-608-9099 // belma.sandoval@upr.edu // Carolina, PR // Linkedin // ePortfolio

EDUCATION

University of Puerto Rico Mayagüez (UPRM)   **Mayagüez, PR**
Bachelor of Science, Chemical Engineering, GPA 3.74/4.00   August 2016-December 2021

Universidad de Salamanca   **Salamanca, Spain**
International Exchange Student   January-May 2020

Cornell University   **Ithaca, NY, USA**
Cornell-UPR Inter University Relief Program   January-May 2018

RESEARCH EXPERIENCE

Catalytic Hydropyrolysis of Lignocellulosic Biomass   **Madison, WI, USA**
Assistant Researcher, Chemical Engineering Department, University of Wisconsin-Madison   June-August 2019
Principal Investigator - Dr. George Huber
- Conducted catalytic hydropyrolysis on cellulose and lignin to analyze the products of the reaction
- Analyzed gas chromatography (GC) data to identify and quantify the products being made and obtained mechanistic insights on chemical pathways that could've occurred as a result of this reaction
- Identified over 85 products of cellulose hydropyrolysis and obtained yields of 90+%

Hydrodeoxygenation of Sugar Alcohols to Diols   **Mayagüez, PR**
Undergraduate Researcher, Chemical Engineering Department, UPRM   August 2018-May 2019
Principal Investigator - Dr. Yomaira Pagán Torres
- Synthesized catalysts to perform impregnations on catalyst supports used in hydrodeoxygenation reactions and compared catalyst performance to create biomass-based products equivalent to petroleum derivatives

INDUSTRY EXPERIENCE

ExxonMobil Chemical Company, Manufacturing   **Pensacola, FL, USA**
Process Engineer COOP   September-December 2019
- Developed nine projects throughout the 15-week period focusing on improving the current plant processes and looked for innovative ways to reduce the environmental impact caused by the practices in place
- Applied academic knowledge to streamline industry processes and redesign current facilities to increase efficiency
- Advanced projects and smoothly transitioned completed work to the responsible parties upon experience completion

The Procter & Gamble Co., Family Care R&D   **Cincinnati, OH, USA**
Charmin Products Research Intern   May-August 2018
- Developed a conceptual model on targeted consumer benefit (P&G proprietary information) fully explained by product design technical requirements that drove consumer appeal
- Connected conceptual model to current test methods, and recommended NEW methods to predict consumer appeal
- Identified actionable areas for the design team to activate in current and future initiatives

Analytical Department Intern   May-August 2017
- Developed a quantitative method to measure the basis weight of a chosen material using fluorescence imaging
- Prepared samples and took images with controlled settings, wrote MATLAB code for quantitative image analysis
- Formulated an equation that correlated the basis weight of a sample to the intensity of an image

LEADERSHIP EXPERIENCE

Society of Hispanic Professional Engineers (SHPE)   **Mayagüez, PR**
Membership Development Vice President   June 2020-present
- Innovating ways to keep members active amidst the COVID-19 pandemic and working with my team to bring value activities to develop our members' skills
- Achieved position as a Certified Chapter Leader by attending the National Institute for Leadership Advancement (NILA)

Career Prep Program Mentor   August 2018-May 2019
- Recruited & mentored students who have not been able to land an Internship/COOP experience and provided the tools for them to be more competitive candidates for professional experiences

UPRM Engineering Pearls (ePEARLS)   **Mayagüez, PR**
Selected Participant   October 2018-present
- Elected to participate in an NSF sponsored scholarship program dedicated to helping students successfully complete their study programs with individualized career mentoring, trainings, activities, etc.

SKILLS

Bilingual (English/Spanish); Medium Knowledge in MATLAB; Basic Knowledge in JMP, AutoCAD, Arduino, Python, HTML/CSS

Calleb J. Diaz Acevedo

calleb.diaz2@upr.edu • (787) – 612 – 9267 • https://callebdiaz2.wixsite.com/mysite

Education

University of Puerto Rico, Mayagüez CAMPUS	August 2018 - Present
B.S. in Chemical Engineering (Anticipated May 2023)	**GPA: 3.84/4.00**

Experience

NASA Proposal Writing and Evaluation Experience (NPWEE)

Principal Investigator   May 2019 – August 2019

- **Proposed** the use of Polyester Fiber Coated with Silver doped Multi-Walled Carbon Nanotubes to protect Electronic Components from X-Ray radiation
- Participated on a Proposal Review Board
- Presented the Program and Projects to the University Community

NASA Lucy Student Pipeline Accelerator and Competency Enabler (L'SPACE) Academy

Engineering Design Lead   August 2018 – May 2019

- Developed a Preliminary Design Review (**PDR**) for the Aquifer & Geophysical Underground Analyzer (AGUA)
- **Designed** the payload, landing mechanism, and modified a magnetometer to meet the mission's requirements
- Awarded 3rd place Nationwide

Program for Engineering Access, Retention, and LIATS Success (PEARLS)

Member – Scholarship   August 2018 – Present

- Received Career & Educational Mentoring from Dr. Nelson Cardona (PhD in Chemical Engineering)
- Participated on Professional & Non-technical Skills Development Workshops
- Took Special Courses: INGE 3002 – Introduction to Learning Community & INGE 5996 – Undergraduate Research in Engineering

Skills

Technical:

1. Basic Skills in Programing (Python)
2. Bilingual (Spanish & English)
3. Basic Skills in CAD software (AutoCAD)
4. Technical Writing (PDR, Proposal, Memo, BPG, and Infographics)
5. Basic Skills using Accounting Program (Wave)

Soft Skills:

1. Leadership Skills - Small (4) and Medium (20) teams
2. Problem Solving Skills
3. Effective Communication and Organization

Honors & Awards

Engineering Pearls Scholarship	August 2020 - Present

Granted to students with economic needs that excelled academically

UPRM Honor Student	July 2019 - Present

Top 4% on the cohort of students of my admission year

NASA L'SPACE Level 1 & 2 Completion: Concept & Testing Academy	December 2018

Over 40 hours interacting with NASA officials, 40+ hours working on PDR & 8 hours of prototype testing

Daniela J. Rivera Cedeño

(787) 329-4874 | daniela.rivera4@upr.edu | PO Box 1266, Utuado, PR, 00641-1266 | Urb. Alturas Utuado, PR 00641

OBJECTIVE

Seeking a summer internship, coop or research experience related to the Chemical Engineering field, to enhance my knowledge in that career path.

EDUCATION

University of Puerto Rico at Mayagüez,	Expected Graduation: **December 2022**
Bachelor of Science in **Chemical Engineering**	GPA: 3.40/4.00

RELEVANT COURSES:

- Materials and Energy Balance
- Thermodynamics I
- Momentum Transfer Operations
- Analytical Chemistry
- Organic Chemistry
- Physical Chemistry I & II

VOLUNTEER EXPERIENCE:

- **Disaster Medical Assistance Team**   **September 2017**
  Volunteer Interpreter for Medical Teams
  - Served and translated for the members of the Disaster Medical Assistance Team (DMAT) that was on service during Hurricane Maria.
  - Supplied the community with medical supplies, food, and water.

LEADERSHIP EXPERIENCE

- **Colegiales Contra la Contaminación (Triple C)**   **August 2019-Present**
  - Vocal and founding member of Triple C
  - Founder of the monthly event " I Clean My Campus"
  - Currently partnering with other associations to reduce the production of waste on campus.
  - Collaborating in publicity for in-school event
- **The National Society of Collegiate Scholars (NSCS), UPR**   **May 2019-Present**
  - Treasurer and founding member of the campus Chapter
  - Worked in the planning of Chapter events that can help members in their academic,and professional development.
- **Program For Engineering Access, Retention, and LIATS Success**   **October 2018-Present**
  - Program that helps engineering students excel in their specific field and grow professionally and academically
  - Assisted in conferences and seminars that promote student growth in the different engineering fields.
  - Participant of student professor mentoring with Prof. Nelson Cardona as my mentor
- **American Chemical Society (ACS)**   **August 2018-Present**
  - Active participant of the UPRM chapter
  - Participated to seminars, webinars, and workshops related with Chemistry and student development

AWARDS & HONORS:

- **Engineering Pearls Scholarship**   **August 2019-Present**
  - Scholarship provided by the EPEARLS Program to the students who exede in their academic development.

SKILLS

- Efficient user of Microsoft Office (Word, Power Point, Excel)
- Programming skills (Python, AutoCAD)
- Excellent communication in both Spanish and English
- Adaptable and Hardworker
- Strong teamwork skills

Gerardo J. J. Mena Fernández

PH: (787) 487-6040 | **Email:** gerardo.mena2@upr.edu

Education:

UNIVERSITY OF PUERTO RICO, MAYAGÜEZ (UPRM)
- B.S. in **Chemical Engineering** (153/172crd) — Graduation Date: **May 2022**
- Minor Concentration in **Project Management** — GPA: **3.8**/4.0 | Major GPA: **4.0**/4.0

Relevant Courses:

- Thermodynamics I & II
- Momentum Transfer Operations
- Heat/Mass Transfer Operation
- Differential Equations
- Coding & Computer Programming
- Analytical/Organic/Food Chemistry

Projects/Research Experience:

PROCESS ENGINEER CO-OP–KIMBERLY CLARK (MAUMELLE)   **06/2020-12/2020**
- Reduced the variability in the changeover procedures by up to **69%** for all the Huggies® wipes runs, lowering the downtime, thus increasing the efficiency and %OEE of each production line.
- Optimized, standardized, and automated the runout procedures for the wipes to reduce wastes by **70%** to increase profits and minimize the environmental impact of the process.
- Improved raw material handling process and aided in the change management process/training to the downtime of the process by up to **54%** resulting in more than **$1.2MM/yr** in gains.

ELECTRODE ENHANCEMENT SOLID OXYDE FUEL CELLS–RESEARCH (UPRM)   **08/2019-05/2020**
- Critically evaluating the performance, cost and, durability components of SOFC and PEMFC by assessing degradation and cost efficiency when operating the cell for long periods of time at relatively high temperatures.
- Implementing a new cathode material for high temperature operation with a minimum degradation for optimal.

CHARACTERIZATION OF PROBIOTICS BY S.E.R.S–RESEARCH (UPRM)   **08/2019-11/2019**
- Analyze bacterial membrane components to obtain a distinctive spectrum for fast and selective identification when using complex samples such as dairy products, broth and other aqueous solutions.
- Quantify the probiotic concentration and, compare its accuracy against UV-Vis spectroscopy and theoretical results.

Leadership Experience:

SOCIETY OF HISPANIC PROFESSIONAL ENGINEERS (SHPE) -UPRM   **06/2017-PRESENT**
- **Vice-President of Enterprise (Executive Board, 2020)**
  -Managed corporate relationships for the largest student organization on campus by overseeing the coordination and execution of workshops, info-sessions and other events for the professional development of our members.
- **Academic Excellence Director (Executive Board, 2019)**
  -Led a team to facilitate opportunities for students to obtain undergraduate research projects, carry out workshops and organize plant tours to provide to the students an insight into the everyday environment as an engineer.
  -Coordinator of the 2020 *Puerto Rico Regional Science Bowl* for over **150** middle and high school students.
- **SHPE Fellow (2018)**
  -Created technical partnerships with other UPRM associations from all the departments to broaden the workshop topics that SHPE is offering, to a more technical scope and, the resulting events impacted more than **65** students.

PRESIDENT – BOYS SCOUTS OF AMERICA, CREW 821   **02/2019-02/2021**
- Develop over **25** teens from the crew as leaders by planning and executing workshops and camps to help them gain soft skills and techniques such as time management, group control, goal setting, strategic thinking and, prioritizing.
- Organized, helped, and executed camps, beach cleanings and other community service activities for over **50** scouts.

Extracurricular Activities:

SCIENCE AND MATH TUTOR-COMMUNITY SERVICE   **06/2017-03/2020**
- Tutor over **100** high school and university students in science and math courses to improve their knowledge and academic performance on exams, assignments, quizzes, and special projects.

Skills & Abilities:

- Fully bilingual: English and Spanish; basic proficiency: Italian
- Intermediate in MATLAB, Python, Visual Basic, AutoCAD, PLC, Plot.Ly, Windows Microsoft, and Excel.
- Ability to work with: project management, time management, case study analysis, SOPs and, GLPs.
- Laboratory skills: screen printing, UV-Vis and Raman spectroscopy, HPLC, GC, PVD.

María A. Lucca Torres

Jardines del Caribe #1 309 Ponce, PR 00728
maria.lucca@upr.edu • *787-396-1871•* [LinkedIn](#)• [ePortfolio](#)

Education

University of Puerto Rico, Mayagüez Campus   Mayagüez, PR
B.S. Chemical Engineering   Expected graduation date: May 2022
GPA: 3.07 / 4.00
Scholarship: Program for Engineering Access, Retention and LIATS Success (ePEARLS) recipient

Professional Experience

Instarz LLC   Mayagüez, PR
Chemical Engineer Intern   *September 2020- January 2021*
- Researched and implemented life support systems such as water recycling and oxygen generation.
- Explored properties of advanced materials and identified potential applications.
- Worked on risk evaluation and management.

Pfizer Pharmaceuticals, Environmental Health and Safety   Barceloneta, PR
Summer Student- Environmental Health and Safety   *June 2019-August 2019*
- Made improvements to fugitive emissions and volatile organic emissions calculations.
- Interacted with API and Environmental personnel to gather data from the field.
- Analyzed data and established a system to calculate fugitive emissions and VOCs.

University of Illinois College of Pharmacy   Rockford, IL, USA
Student at the Summer Pharmacy Institute (SPI)   *June 2019*
- Explored different areas of pharmacy by participating in full day workshops devoted to current trends, research, and activities in each of the following focus areas: Hospital, Ambulatory Care, Industry/Research & Development, Community, and Professionalism in the Field.

Leadership Experience

Future Pharmacist Association   Mayagüez, PR
Vice president   *May 2021-present*
- Assist chapter president in tasks and coordinate activities for the academic year.

Sub-Secretary   *August 2020-May 2021*
- Assisted chapter secretary by taking meeting notes and communicating regularly with members.
- Established open and constant communication with members to encourage participation in virtual settings.

Phi Lambda Upsilon Honorary Chemical Society   Mayagüez, PR
Vice president   *May 2021-present*
- Assist chapter president and coordinate activities for the academic year

Outreach Coordinator   *August 2020-May 2021*
- Developed community service activities to help different populations.
- Coordinated volunteers and donations for outreach activities.

ePEARLS Leadership & Mentoring Program   Mayagüez, PR
Peer Mentor   *August 2018-present*
- Currently, mentoring a group of 3 ePEARLS students, providing them with the tools they need to succeed.
- Trained by Peer Led Team Learning (PLTL), where I participated in an active learning experience and improved my leadership skills.

Skills

Microsoft Office; AutoCAD (Basic); Fluent in Spanish and English; MATLAB (Basic)

NOLAN G. CRUZ RIVERA

E41 Ave Ricky Seda Urb. Idamaris Garden's| 939-416-8238 | nolan.cruz@upr.edu

OBJECTIVES

Enthusiastic Chemical Engineering student eager to contribute to team success through hard work, attention to detail and excellent organizational skills to acquire work experience through a COOP.

EDUCATION

University of Puerto Rico at Mayaguez (UPRM)   **GPA: 3.38/4.00**

Bachelor of Science in Chemical Engineering   **Estimated Graduation Date: May 2024**

Relevant Coursework: Materials & Energy Balances (In Progress), Physical Chemistry II, Analytical Chemistry, Organic Chemistry and Algorithms & Computer Programming.

EXPERIENCE

- **Puerto Rico Energy Center (Summer Camp) - Gurabo PR**   **June 2018 – July 2018**
    - Proposed a renewable energy source by fission using thorium as the primary fuel. A molten salt reactor model was sketched and drew using AutoCAD program.
    - A recirculation system was implemented to reuse up to 99% of the initial thorium fuel. This mitigated the initial raw material costs from $ 862,546 to $ 510,000 representing a huge decrease of 40.9%.
    - Developed an algorithm that calculated a 45-50% thermal efficiency in thorium reactors vs 30% efficiency in traditional uranium reactors. The mathematical model presented and stated that thorium reactors can operate up to 20% more efficient and at low-pressure systems making a safe environment to work.

SKILLS AND ABILITIES

Laboratory skills

- Knowledge and domain in chemical sensors for biomedical applications.
- Mathematical problem-solving for laboratory validation such as quality control and quality assurance (Limit of Detection, Limit of Quantitation, and Limit of Linearity) of pharmacological products.
- Experience in the operation of the Beckman du 640 uv-vis spectrophotometer and the Orion 960 auto chemistry system
- Practice reading absorbances at fixed wavelengths.
- Practice using the High-Performance Liquid Chromatography (HPLC) for the separation of the non-volatile components.
- Preparation of stock solutions such as benzoic acid, nitric acid, sulfuric acid, and potassium dichromate.
- Experience in electrogravimetric analysis.

Communication skills

- Proposed a reliable source of renewable energy, Molten salt reactor and Thorium as the main and primary fuel, at Puerto Rico Energy Center conference with engineers, investors, and PREC department.
- Proposed a business idea, replacing the battery storage in nuclear reactors with thermal heat to supply energy to turbines, at the University of Puerto Rico of Cayey (UPRC).

HONORS

Awarded one (1) tuition scholarship with The Program for Engineering Access, Retention, and LIATS Success (PEARLS) (Dec 2018)

AFILLIATIONS AND LEADERSHIP EXPERIENCES

- **Circulo de Pre-Médicos (CPM) - UPRM**   **September 2020 - Present**
    - Active member
- **National Society of Leadership and Success (NSLS) - UPRM**   **September 2019 – Present**
    - Active member in the #1 ranked and biggest leadership association in United States
- **Engineering Pearls - UPRM**   **October 2018 - Present**
    - Active member

SAMIR ESPADA ORTIZ

☎ 939-325-1093   ✉ samir.espada@upr.edu

Innovative engineer capable of extensive analysis of chemical engineering and pharmaceutical processes. Seeking a summer internship opportunity where I may contribute to the development and workforce of a company.

EDUCATION

University of Puerto Rico, Mayagüez Campus	**General GPA: 3.51**
Bachelor of Science in **Chemical Engineering**	**Specialty GPA: 3.67**
Minor of Science in **Pharmaceutical Engineering**	Graduation Date: **May 2021**

EXPERIENCE

UNIVERSITY PROFESSOR ASSISTANT   **August 2021–Present**
- **Assist** assigned professors in teaching responsibilities.
- **Supervise** students so that proper lab safety measures are taken.
- **Assign** grades to undergraduate student lab reports.

HYDROPHOBIC PARTICLE DISTRIBUTION RESEARCH   **January 2021-May 2021**
- **Proposed** a characterization of adhesion forces of hydrophobic particles on carrier lactose.
- **Performed** preliminary force-distance measurements in an **Atomic Force Microscope.**

MATERIAL CHARACTERIZATION RESEARCH   **January 2020-December 2020**
- **Improved** flow properties of powder mixtures by using an **FT4 Rheometer.**
- **Coached** a student in **material characterization techniques**.

CAAEF MATHEMATICS TUTOR AT UPR-PONCE   **January 2016–December 2016**
- **Tutored** in math courses such as basic math, precalculus I & II and Calculus I & II
- **Improvement** was observed in the grades of regularly visiting students.

EXTRACURRICULAR

- Part of the **UPRM-Judo Team** won **silver medal** in UPRM Tarzan Judo Cup   **August 2017–May 2019**

CERTIFICATIONS

SACHE ELA992: DUST EXPLOSION CERTIFICATE, AICHE   **March 2020**
Completed ELA992 course on dust explosion safety and how to minimize elements that contribute to a dust explosion.

SACHE ELA950: INTRODUCTION TO PROCESS SAFETY CERTIFICATE, AICHE   **March 2020**
Completed ELA950 course on the importance of process safety and key elements.

RELEVANT COURSES

- Project Management, Material and Energy Balances, Fluid Mechanics, Mass and Heat Transfer, Thermodynamics, Reaction Kinetics, Process Control, Pharmaceutical Operations, Bioreactor Design, Technical Writing

SKILLS

- Bilingual (Spanish and English)
- Trained in use of FT4 Rheometer.
- Trained in material characterizations such as: tap and bulk density, Insitec, Eyecon, friability and PSD.
- Strong analytical and mathematical skills
- Project management skills
- Pharmaceutical operations skills

- Technical writing skills
- Efficient at teamwork and leadership
- Adaptable and Fast Learner
- Able to work under pressure.
- Creative thinking
- Problem solving skills.

Tamara I. Soto Hernández

Hc 04 Box 17395, Camuy, P.R. 00627
(787) 452-1846
tamara.soto4@upr.edu
linkedin.com/in/tamara-i-soto-hernández
tamarasoto4.wixsite.com/myeportfolio

Profile

Undergraduate student seeking for internship or COOP opportunities in the field of Chemical Engineering to develop experiences and skills, to construct a successful pathway into professional life.

Education

University of Puerto Rico, Mayagüez Campus　　　　　　　　　　　　　　Expected Graduation: Dec 2021
- Chemical Engineering, B.S.　　　　　　　　　　　　　　　　　　　　　　GPA: 3.82 / 4.00

Professional Experience

Summer 2020 Virtual REU Program, University of Wisconsin-Madison, U.S.　　　　　　Summer 2020
- Worked in a project on Data and Machine Learning in Materials and Chemistry, led by the Prof. Dane Morgan and the graduate student Benjamin Afflerbach, to train a model to predict the superconducting critical temperature.
- Optimized the model by normalizing features, adjusting hyperparameters, comparing validation techniques, and generating parity plots and error metrics.
- Attended to faculty and professional development seminars to prepare for a successful graduate education.

Research Experiences

DFT Study on the Effect of Aluminum Position in Cu-Exchanged MFI on Methane Activation
Mentor: Dr. Maria Curet-Arana　　　　　　　　　　　　　　　　　　September 2019-Present
- Analyze systematically all the possible Al configurations on one of the specific rings in which the Cu atom is commonly located within the MFI zeolite.
- Use Gauss View and Notepad++ to modify the structures and edit files according to the type of calculation needed.
- Use Linux operating system and Gaussian to perform all DFT calculations by mean of commands.

Participatory Action Research of the Development Communities Institute
Mentor: Prof. Luisa Seijo-Maldonado　　　　　　　　　　　　　　　　February-May 2019
- Investigated the community of Quebrada, Camuy to know their needs receiving mentoring by Irwin Guzmán-Cajigas.
- Established dialogues with residents, analyze community needs, search for solutions.
- Provided a preliminary presentation for professors, mentors and students about the assigned community.

Leadership and Extracurricular Experiences

ePEARLS Leadership & Mentoring Program　　　　　　　　　　　　　August 2019-December 2020
- Mentoring a group of ePEARLS students.
- Offer workshops and office hours to help ePEARLS peers.
- Trained by Peer Led Team Learning (PLTL) to receive an active learning experience and create leadership roles.

Program for Engineering Access, Retention, and LIATS Success (PEARLS)　　　　October 2018-Present
- Receive individual career mentoring from Dr. Nelson Cardona Martínez.
- Enrolled in courses for professional development.
- Participant of workshops, meetings, research study, and other activities.

Associations

Society of Women Engineers (SWE)　　　　　　　　　　　　　　　　August 2019-Present
- Participant of workshops and charity activities (March Against Breast Cancer, Operation Christmas Child and Orphanage Visit).

American Institute of Chemical Engineers (AIChE)　　　　　　　　　　　August 2018-Present
- Participant of symposium, workshops, meetings, and other activities.

Honors

- "Fondo Irrestricto" Scholarship　　　　　　　　　　　　　　　　　　　June 2020
- Chemical Engineering Honor Roll Recognition　　　　　　　　　　　　　March 2019
- ePEARLS Scholarship　　　　　　　　　　　　　　　　　　　　　　January 2019-Present
- Honor Tuition Exemption　　　　　　　　　　　　　August 2018, August 2020-Present
- Camuy Coop Scholarship　　　　　　　　　　　　　　　May 2016-December 2020

Skills

- Fluent in Spanish / Proficient in English language.
- Proficient in Microsoft Office.
- Proficient in AutoCAD and Python.
- Proficient in Mendeley.
- Time management and organization.
- Adaptable to different environments.

Civil Engineering

Name	Availability	
	Spring	Summer
• **Carolina Gandia de Arce**		
• **Elioner Rivera Apontez**	✓	✓
• **Sebastián Serrano Pagan**	✓	✓

Carolina I. Gandía de Arce

carolina.gandia@upr.edu – (787) 215-7078

Objective

Seeking an **Internship** related to **Civil Engineering** to acquire new knowledge which I can apply in my professional career and be helpful with my abilities of leadership, using AutoCAD or others computer programs, and knowledge acquire in classes.

Education

Bachelor of Science : Civil Engineering

University of Puerto Rico - Mayagüez, P.R.
– Curricular Sequence in Arts.
– GPA: 3.60/4.00
– Expected graduation: December 2021
– Scholarships: Founded by the National Science Foundation (NSF) through the project NSF-DUE 1833869.

Experience

March 2019 - Present   **PEARLS Peer Mentor / e-PEARLS - UPRM - Mayagüez, P.R.**

Nayda G. Santiago , PE, PhD; Carla López del Puerto, PhD
– Leadership and Mentoring program: Peer Led Team Learning.
– Part of a group of leader students of e-PEARLS program (Engineering Program for Engineering Access, Retention, and LIATS Success) to support and help other students to reach their professionals goals.

July 2019 - March 2020   **Concrete Canoe Team / ASCE - UPRM - Mayagüez, P.R.**

Felipe J. Acosta Costa, PE, PhD
– Leader of Hull Design Team; in charge of graphics design and aesthetics of the canoe.
– Supervise and help the hull design team to learn the concepts of a canoe's structure, thus complete with the objectives of the team.

May 2018 - June 2019
– Member of the Hull Design Team.
– Designed and analyzed the canoe's hull to get an efficient, faster and maneuverable canoe that complied with the rules of the competition using Rhinoceros 5 program.
– In charge of the photographs of the canoe procedure, graphic design of the official documents, display decoration, and aesthetics of the canoe.

July 2019   **Structural Plan Special Project / UPRM Library - Mayagüez, P.R.**

Anidza Valentín Rodríguez, PhD
– Measure the space and make the structural plan of 4 sections of the first floor of the University of Puerto Rico, Mayagüez Campus General Library on a real scale in the AutoCAD program.

Oct. 2016 - Dec. 2016   **Evaluation of Tourist Signs Project / ITE - UPRM - Mayagüez, P.R.**
– Analyzed route at the city of Cabo Rojo, P.R.
– Designed tourism signs using the Manual on Uniform Traffic Control Devices (MUTCD) regulations on AutoCAD.
– Proposed the appropriated places for the tourism signs.

Acknowledgements/Skills

– Bilingual: Spanish (native) and English (intermediate).

– Proficient knowledge on computer programs: AutoCAD, Rhinoceros, SketchUp, PowerPoint, Excel, Word.

Other Interests

– Certificate on Collaborative Institutional Training Initiative (CITI) program: Responsible Conduct of Research for Engineers - Stage 1.
– 2019 Summer Workshop: Learning about driving simulator, specially ISA, and how to make simulator scenarios.

ELIONER RIVERA APONTE

elioner.rivera@upr.edu | (787) 368-4907 | Yabucoa, P.R.

EDUCATION

University of Puerto Rico at Mayagüez   Expected Graduation: May 2023
Bachelor of Science in Civil Engineering   GPA: 3.74/4.00

Relevant Courses:

> Calculus I, II and III, Ordinary Differential Equations, Engineering Graphics I and II, Algorithms and Computer Programming, Engineering Mechanic Static and Dynamic, Mechanic of Materials I and II, Civil Engineering Materials, Fluid Mechanics, Structural Analysis I and II, Structural Steel Design, Geomatics I and II, Introduction to Environmental Engineering, Highway Location and Curve Design, Introduction to Transportation Engineering

EXPERIENCES

UPRM Steel Bridge Team – Captain   June 2020- Present
Advisor: Jose O. Guevara

- Handpicked 9 outstanding members out of 65 applicants through multiple interviewing structures.
- Managed a team of 16 members developing their skills and competition events.
- Instructed new members in the design programs (SAP2000, AutoCAD, SolidWorks), safety in the Construction Laboratory and optimization project according to the requirements given by the American Institute of Steel Construction.

UPRM Steel Bridge Team – Member   June 2019- May 2020
Advisor: Jose O. Guevara

- Selected as 1 of 13 team members to work in design, analysis and construction of a steel truss bridge in the 2019 AISC Steel Bridge Competition.
- Worked in structure design, steel connection design, construction, vertical and lateral load testing, data analysis and bridge assembly optimization.
- Had one of the Top two steel bridge models chosen from the whole team.

HONORS AND AWARDS

Program for Engineering Access, Retention, and LIATS Success (PEARLS)   October 2018- Present
Participant and Scholarship Recipient

- Founded by National Science Foundation through award #1833869 and selected to participate in a program for talented engineering students.
- The Program is directed at helping bachelor's level students to successfully complete their study program by offering mentoring, workshops, and research opportunities.

PROFESSIONAL ASSOCIATIONS

American Institute of Steel Construction (AISC) – Active Member   August 2019 - Present

- Attended Outreach activities throughout Puerto Rico with Ada Monzón.
- Participated in Professional Development Workshop.

VOLUNTEER WORK

Come Colegial, UPRM   November 2017

- Helped to giving emergency supplies to the people in Morovis PR after Hurricane Maria under the guidance of Professor Edward Contreras.
- Helped organized the packages.

Cineret: Escuela de Levitas   October 2016- March 2017

- Tutored children around the ages from 6 to 10 in the subject of Spanish and Math.
- Contributed to the maintenance of the school.

SKILLS

- Languages: Spanish (Fluent) and English (Intermediate)
- Programing Language: Phyton
- SAP2000, AutoCAD, SolidWorks, Civil 3D and Microsoft Office
- Leadership, Teamwork and Adaptability

Sebastián Serrano-Pagán

Guaynabo, Puerto Rico
(787) 639-1240 / sebastian.serrano1@upr.edu

OBJECTIVE

Organized civil engineering student in possession of great communication and leadership skills due to some experience in projects seeking the opportunity of a Summer Internship or Coop to contribute to my professional development opening the possibilities for future job opportunities.

EDUCATION

Engineering School of University of Puerto Rico, Mayagüez Campus

(2017- Present)
Civil engineering bachelor's degree with a minor in Project Management. Expected graduation in May 2022
Cumulative GPA: 3.39
Major GPA: 3.65

SKILLS

Technical Skills
Computer aided design/engineering: Blue Beam, AutoCAD, Civil 3D, SketchUp, SeismoStruct, Microsoft Project

Other: Project Management, Create research road scenarios and running subjects on vehicle simulators using Internet Scene Assembly (ISA) software, Windows OS

Languages
Spanish: Fluent
English: Proficient

Soft Skills
Meticulous and detailed oriented, Great communication skills, Persistent in reaching goals, Teamwork, Leadership, Negotiation, Problem solving, Work under pressure, Manage time, Constructive critique, Listening, Coaching, Self-management

EXPERIENCE

Research to assess seismic vulnerabilities in structures
In process of performing seismic analyses to digital models of soft-story r/c houses, a very common type of residence in Puerto Rico, to eventually develop reinforcement and rehabilitation methods. **(2020- Present)**

ASC Region 2 Competition, Heavy Civil Category First Place Award
I successfully developed a Construction Methods and Strategy Plan while assisting the Project Schedule and Estimate, for the completion of a Bid Package Proposal for the construction of the S-191A Pump Station. **(February 2021)**
Competition Sponsor: Kiewit Corp.

Mi María: Puerto Rico after the Hurricane
Social Justice & Community Project
Perform various tasks such as conducting interviews, transcription, translation, oversee the design of the exhibition and catalog of the project and coordinate material selection and scheduling of the exhibition. **(2018- 2019)**
Mentor: Dr. Ricia Chansky
website: mimariapr.org

HONORS & AWARDS

ePearls Scholarship Holder
Founded by the National Science Foundation through award #1833869 and selected to participate in a mentorship program for talented engineering students. **(August 2020)**

CERTIFICATIONS & ORGANIZATIONS

Bulldogs Construction: AGC UPRM Construction Management and Engineering Team **(2020- Present)**

UPRM Engineering Pearls Program **(2018- Present)**

ASCE Organization **(2019- Present)**

Track & Field UPRM Team **(2018- 2019)**

CITI Program Certification: Responsible Conduct of Research for Engineers, stage1 **(July 2019)**

Computer Engineering

Name	Availability	
	Spring	Summer
• **Homar Rodriguez Ramos**	✓	
• **Jorge Vega Rodríguez**	✓	✓
• **Leonardo Torres de la Rosa**	✓	✓
• **Rose M. Sánchez Irizarry**	✓	✓
• **Víctor Barriera Velázquez**	✓	✓

Homar Rodríguez Ramos

✉ homar.rodriguez@upr.edu

☎ 787-220-0101

SKILLS

Soft Skills
Time Management, Communication, Adaptable, Multi-tasking, Strategic Planning, Organization

Operating Systems
Mac OS, iOS and Windows OS

Programming Languages Proficiency
Working Proficiency: C++, C, HTML-5 and CSS
Basic Knowledge: C#, Java, MATLAB and Python

Wireshark with Ubertooth-One Software
Detection of devices that transmit Bluetooth signals and 2D graphs of microwave frequencies.

SET Die-to-Die/Die-to-Wafer bonder
Accurate setup and calibration of fine alignment within ±1 μm accuracy. Bonding of die stacks to assemble advanced microelectronic architectures.

Dage Shear Tester
Equipment calibration and shear testing strength of a die to chip connection.

Control Micro Systems Positioning Laser
Integrated circuits laser marking based on customer schematics request.

Language Proficiency
Fluent in English and Spanish. Basic understanding of Portuguese. Basic reading Italian.

Miscellaneous Proficiency
Proficient with Microsoft Visio, Apple Configurator, Jira, Confluence, photo manipulation, and video editing.

Extracurricular Activities

IEEE VTS – Mayagüez Chapter
Social Media Manager
Jan 2020 – Aug 2020
Promoted the association by maintaining active social media accounts; informed the university's student body of our activities.
Secretary
Aug 2019 – Dec 2019
Organized meetings for ±20 undergraduate research students, coordinated multiple engineering workshops for +25 students, and co-developed association's autonomous quadcopters project proposal

Kinesis Foundation FAFSA Weekend
Student Assistant
Dec 2016 & Dec 2017
Informed parents and students about the benefits of the Free Application for Federal Student Aid (FAFSA) form and guided them in the process of filling the form; around +100 students had their FAFSA successfully completed in each year.

ePearls Program
Member
Aug 2018 - Present
College initiative sponsored by the National Science Foundation with the aim of helping college students in engineering disciplines transition into their professional career.

SUMMARY

Computer Engineering student with nine months of industry experience and nine months of research experience interested in software development and cybersecurity opportunities for professional growth through an internship or undergraduate research.

EDUCATION

University of Puerto Rico – Mayagüez (UPRM)
Bachelor of Science in Computer Engineering   Major GPA: 3.30/4.00
UPRM Film Certificate (In progress)
Aug 2017 – May 2023

RELEVANT COURSEWORK

Approved Courses
Algorithms & Computer Programming // Foundations of Computing // Calculus I, II, III // Electrical Systems Analysis I // Electric Measurements Lab // Graphics Engineering

Current Courses
Advanced Programming // Logic Circuits (Switching) // Electronics I // Differential Equations

EXPERIENCE

Department of Defense
Microelectronics Process Engineer
Aug 2020 – Dec 2020
Bonded, coined and shear tested die in support of high-performance computing. Implemented administrative office flows through Jira to improve project management and track project tasks. Laser marked schematics components based on customer request.

Mobile Vulnerability Analyst
Jan 2020 – Apr 2020
Drafted vulnerability findings on mobile devices and developed cybersecurity guidelines to mitigate issues. Configured tools to capture and analyze Bluetooth signals and conducted mobile device traffic analysis.

Kinesis Foundation
Teacher Assistant
Feb 2018 – Mar 2018
Assisted instructor at the Kinesis Foundation in educating high school students in the subject of web development and how to make their professional web page using HTML-5 and CSS; around 20 students were certified through the Microsoft Certified Professional Program.

RESEARCH

University of Puerto Rico – Mayagüez
CASHI UPRM - Team LiDron
Oct 2020 – Present
Reviewed sensor functionality of the project's quadcopter, with the objective of integrating a LiDAR based altimeter and obstacle avoidance sensor; underwent training in Python and ROS programming to tackle LiDAR sensors functionality with the single board computer of the drone as future work. The project aims to design a quadcopter with the ability to analyze the best surface for autonomous landing through LiDAR sensors.

Vehicular Technology Society (VTS) Quadcopter
Aug 2019 – Dec 2019
Co-programmed a pothole detector prototype with the ability to roughly sketch dimensions (depth, length, width) of a pothole in an image using MATLAB. The project aimed to analyzed potholes on roads and report them for official use for transportation agencies.

CERTIFICATIONS & LISCENSES

Social and Behavioral Responsible Conduct of Research
2021 – Present

Clearance
2019 – Present
Top Secret (TS) // Sensitive Compartmented Information (SCI) // Talent Keyhole (TK) Agency Special Background Investigation (SBI) // Polygraph

Microsoft Technology Associate
Certified in Security // Windows Operating Systems // Software Development Fundamentals // Introduction to Programming using HTML and CSS

Microsoft Office Specialist
Certified in Word 2013/2016 // PowerPoint 2013/2016 // Excel 2013/2016

AWARDS

LUSCA Fantastic Film Fest 2019 Mayagüez Film Challenge
Produced the stop motion short film *Space Mates* and won "Best Short" and "Best Director" awards.

Kinesis Foundation Scholarship
Aug 2017 – Present
Awarded scholarship for maintaining +3.0 GPA during college.

JORGE E. VEGA RODRIGUEZ

(787)-614-6020 • jorge.vega6@upr.edu • ⬤ /jorge-vega6 • 🔳 /jorge-e-vega • jorgevega66.com/portfolio

Objectives: To apply what I have learned and broaden my experience through **internship or co-op** positions relating to **Computer Engineering**, especially in the field of **Web and Mobile Development**.

EDUCATION

University of Puerto Rico Mayagüez (UPRM)   Expected Graduation**:** May 2022
BSc, **Computer Engineering**   Cumulative GPA: **3.60/4.00**   Major GPA: **3.64/4.00**

SKILLS / TOOLS

- Proficient in Java, Python – Basic knowledge in JavaScript, Golang, SQL, MATLAB, C, C#
- Angular, Entity Framework 6, Flask, Express
- Git, Scrum and Agile Methodology, Microsoft Team Foundation Server
- Adobe Photoshop, GIMP, LogicWorks, Microsoft Word, Excel, PowerPoint

RELEVANT COURSES / WORKSHOPS

- Key Principles of Lean Manufacturing
- Peer-Led Team Learning CAHSI Workshop
- Data Structures, Databases
- Microprocessors and Embedded Systems

WORK EXPERIENCE

International Business Machines (IBM) – Business Support System   Foster City, CA (virtual)
IBM Cloud Backend Software Developer Co-op   Jun 2020 - Dec 2020

- Wrote integration tests in **Java**, **JavaScript**, **Python** and **Golang** for the Open Service Broker (OSB) API in the IBM Platform Services SDK open source projects.
- Implemented a test service API following the OSB specification, using IBM Cloud Functions.
- Implemented the backend for *NewChance*, an ex-convict rehabilitation platform my team and I submitted as an MVP for the IBM North America Intern Hackathon 2020.

Abarca Health, LLC - *Migration* of *User-Permission Management System*   San Juan, PR
Software Engineering Internship   May 2019 - Aug 2019

- Updated **database** items, like Stored Procedures and Synonyms, to implement a new user-role-permission logic across Abarca's applications.
- Identified and fixed bugs to enable usage of an application to manage the new user-role-permission system, using **Angular** for the frontend and **ASP.NET Core** for the backend API.
  - Solved bugs including reducing a page's loading time by 83%, Internet Explorer compatibility
- Organized the permissions table by validating used vs. unused permissions, standardizing naming conventions and fixing spelling / grammatical errors within the database.

LEADERSHIP / EXTRACURRICULAR EXPERIENCE

Engineering PEARLs PLTL Mentor (UPRM)   Mayagüez, PR
- Offering PLTL workshops and individualized mentoring to ePearls students.   Aug 2019 - Present

Community Engagement Project Coordinator   San Juan, PR
- Created workshops and activities to promote interpersonal engagement   Aug 2015 - May 2016
  between residents in the Los Olmos Condominium community.

AFFILIATIONS

- Association for Computing Machinery (ACM-CSE UPRM), *Member of RUMStats Project Team*
- Society of Hispanic Professional Engineers (SHPE), *Member of Support Team*
  - National Science Bowl Volunteer   UPRM 2020

AWARDS

Lockheed Martin Scholars Program   Feb 2017
Banco Popular Foundation's Rafael Carrión Jr. Award for Academic Excellence   May 2016

Leonardo G. Torres De La Rosa

leonardo.torres5@upr.edu • (787) 949-8712 • San Juan, PR • github.com/lgtdlr

Education

University of Puerto Rico, Mayagüez Campus — Expected Graduation Date: Dec 2022
Bachelor of Science in Computer Engineering: Computing Systems — GPA: 3.71/4.00

Relevant Courses

- Data Structures
- Microprocessors & Embedded Systems
- Electrical System Analysis II
- Electronics I
- Communications theory
- Logic Circuits

Relevant Skills

- Experienced in Java, C language, and Python syntax.
- Knowledgeable in Cadence circuit designing and simulation.
- Knowledgeable in Docker and Kubernetes.
- Fully bilingual in English and Spanish.

Work Experience

Verizon — June 2020 - August 2020
Tech Intern
- Built a facial recognition Android app implementing sentiment analysis and temperature detection.
- Implemented a Docker based app architecture to make use of 5G MEC.
- Conducted research and prepared documents on emerging technologies.
- Presented valuable insight and recommendations on emerging technologies.

NAVSEA Naval Surface Warfare Center — January 2020 - May 2020
Computer Engineering Intern
- Inspected and tested 303 Input-Output Modules.
- Led OS Software testing for various laptops.
- Created testing procedures and updated technical documents.

Leadership Experience

Student Counselor at University of Puerto Rico, Mayagüez Campus — September 2017 - Present
Co-leader
- Functioned as a co-leader managing and organizing groups of 30 freshmen engineers.
- Thoroughly planned and prepared activities, and the logistics for each day of the orientation week.
- Taught around 300 freshmen about the fundamentals of college through presentations and activities.

Projects

Industrial Affiliate Program Undergraduate Research at University of Puerto Rico, Mayagüez — February 2019 – May 2020
Volunteer researcher
- In charge of gathering and interpreting data related to connection latency and distribution.
- Presented our gathered data to 10 assisting companies and professors in the IAP conference.
- Researched how to simulate a 5G environment using Docker containers and Kubernetes.

BJT and MOSFET Amplifiers Circuit Designing — June 2019 – July 2019
Electronics course project
- Designed and simulated different BJT and MOSFET Amplifiers using Cadence PSpice.
- Created and characterized circuits that would meet specified gain requirements.
- Compared the amplifiers with each other in terms of speed and power consumption by analyzing obtained values, transient graphs, and DC/AC sweeps.

Eclipsed-Snake and Diner Dash Java Games — August 2019 – September 2019
Advanced Programming course projects
- Designed and implemented new features as in debug commands, game mechanics, and visuals to the games.
- Followed coding ethics for developing programs using Object Oriented Programming (OOP).
- Used git to collaborate in pairs.

Honors

- Golden Key collegiate honor society, 2019 – Present
- IEEE-Eta Kappa Nu (IEEE-HKN), 2019 – Present
- Sigma Alpha Pi, National Society of Leadership and Success, 2018 – Present
- Program for Engineering Access, Retention, and LIATS Success (PEARLS), 2018 – Present
- National Society of Collegiate Scholars, 2019 – Present

Rose M. Sánchez-Irizarry

rose.sanchez@upr.edu | US Citizen |
Address: HC-1 Box 26911
Sabana Hoyos, PR 00688
Phone: (787) 204-9700

OBJECTIVE: Obtain a summer internship or COOP where I can apply my knowledge as a Computer Engineering student.

EDUCATION: **University of Puerto Rico, Mayagüez**
Bachelor of Science in Computer Engineering
GPA 3.42/4.00
Expected Graduation Date: May 2023

PROJECTS/WORK EXPERIENCE:

CROME: RUMarino   **Embedded Systems Division Member**   **August 2018 – May2019**
- Researched options of cost-effective materials to design and implement a waterproof bumper switch to detect frontal collisions of the Autonomous Underwater Vehicle (AUV).
- Familiarized with Robotic Operating System (ROS) and Python to communicate with the AUV.
- Developed Arduino program to control rotation of a Futaba s3003 Servo motor.
- Developed Arduino program to control Newton Subsea gripper operation.

Special project: Sound Modulation   **Team Member**   **August 2018 – Present**
   Advisors: Rogelio Palomera PhD & Gladys Ducoudray PhD
- Researched the implementation of sinewaves using MATLAB to reproduce sound.
- Simulated different rpms of a vinyl to understand the sound behavior in terms of frequency.
- The knowledge will be utilized on implementations with microprocessors.
- Presented project at IAP conference in Mayagüez, PR.

Texas Instruments   **Product Test Intern**   **June 2020 – August 2020**
- Designed and Developed diagnostics program for devise test hardware utilizing C++ as the programming language.
- Worked with semiconductor simulation tools.

TECHNICAL / NON-TECHNICAL SKILLS:
- Fluent in Spanish and English.
- Basic knowledge of Arduino, MATLAB, Python, C++ programming languages.
- Basic knowledge in electronics, circuit troubleshooting, circuit soldering, and electrical wiring.
- Intermediate knowledge of Java and object-oriented programming.

RELEVANT COURSES:
- Fundamentals of Computing
- Data Structures
- Digital Logic
- Electronics 1
- Algorithm and computer programming
- Advanced programming
- Mater Science for electrical engineers
- Differential Equations

ACTIVITIES/AWARDS/CERTIFICATION:
- Engineering PEARLS Scholarship   **August 2018- Present**
- Engineering Community Summit (ECOS) participation certificate   **September 14th, 2019**
- Explore CRC and CCWiC conference participation certificate   **November 2nd -3rd, 2019**
- IAP poster session   **September 19th, 2019**

Víctor E. Barriera

CB21 Jobos St., Rio Hondo 3, Bayamon, PR 00961
787-318-2179
victorebarriera@hotmail.com

https://victorbarriera1.wixsite.com/myportfolio

OBJECTIVE
To be part of an organization and put what I've learned in college to the test

SKILLS
- Fully Bilingual (English – Spanish)
- Programs: AutoCAD, Minitab, Microsoft Office
- Technical writing, creative writing, mass media communication
- Programming Languages: Python, Java

EXPERIENCE

IEEE SAC Team: Región Puerto Rico & Caribe – Fall Semester of 2020-Present
Public Relations Officer – Online
Tasked with the planification, management, promotion, and documentation of IEEE seminars and activities

Centro Universitario para el Acceso (CUA) – Fall Semester of 2019-Present
Tutor – Municipio de Mayaguez
Provided English and Math tutoring for low-income, middle school, high school, and college students

Coal Combustion Residuals Research – Spring Semester of 2019
Assistant – Chemistry Building, UPRM
Helped Prof. Carrasquillo gather information about the ecological and health hazards produced by the ashes poorly stored and processed across Puerto Rico in order to file a case against the EPA to push for new guidelines

Bilingual Summer Camp - 2017
Camp Counselor – Levittown, PR

Humane Society of Puerto Rico - 2016
Community Service Volunteer – Guaynabo, PR

EDUCATION

UNIVERSITY OF PUERTO RICO – Mayaguez Campus
Bachelor of Science in Computer Engineering – Expected Graduation in 2023
Relevant coursework:
- Algorithms and Computer Programming
- Foundations of Computing
- Advanced Programming

RECRUITMENT, RETENTION, AND DISTANCE ENGINEERING EDUCATION PROJECT (R2DEEP) - UPR Mayaguez
Engineering Graphics and Pre-Calculus, I & II - August 2017 - May 2018

HONORS & ACTIVITIES

Lurgrea Central College Class Valedictorian – 2018

UPR Mayaguez College of Engineering Pre-Engineering Summer Camp – 2017

Program for Engineering Access, Retention, and LIATS Success (PEARLS)

Institute of Electrical and Electronics Engineers (IEEE) – Student Member

Computer Science & Engineering

Name	Availability	
	Spring	Summer
• Gabriel Rodríguez Ortiz	✓	
• Joshua Cruz Cintrón	✓	✓

Gabriel E. Rodríguez Ortiz

gabriel.rodriguez66@upr.edu   /   (787) 900-6598

OBJECTIVE: To pursue an internship where I can contribute towards its success and have a learning experience.

EDUCATION: **University of Puerto Rico, Mayagüez, Puerto Rico**
Bachelor's Degree in Computer Science and Engineering
Curricular Sequence in Mathematical Probability and Statistics
Expected Graduation: May 2022   GPA: 3.91/4.00

COURSEWORK: Data Structures, Fundamentals of Computing, Data Mining/ML, Big Data Analytics

TECHNICAL SKILLS:

- **Programming Languages**: Python (advanced), JavaScript/TypeScript (intermediate), Java (intermediate), HTML/CSS (intermediate), Go (basic), Scala (basic), SQL (basic), C++/C (basic)
- **Frameworks**: Django, Flask, React, Restify, Express.js, jQuery, Selenium
- **Tools and Technologies**: git, Docker, Node.js, Jenkins, JIRA, Heroku, PostgreSQL, MariaDB/MySQL, Linux

EXPERIENCE:

Advanced Programming Course, UPR at Mayagüez – Teacher's Aide   **Aug 2020 – Present**
- Programming lab instructor of around 26 students. Supported professors with the coursework and provided learning resources to students.

JPMorgan Chase & Co. – Software Engineering Intern   **Jul 2020 – Aug 2020**
- Worked in an agile team building a solution for a non-profit. Collaborated in the development using Flask and React. Dockerized app configuring Nginx, gunicorn and PostgreSQL containers and deployed it in an EC2 instance.

RUMBus, UPR at Mayagüez – Software Developer   **Nov 2019 – Present**
- Collaborated in the implementation of the backend and testing, using technologies as Restify, Jest, Docker, DynamoDB and MariaDB. Implemented an OpenAPI specification and integrated documentation deployment to GitLab pages in the CI pipeline.

Judicial Branch of Puerto Rico – COOP   **Jun 2019 – May 2020**
- Worked as a Confidential Systems Analyst Programmer, with a team employing scrum framework developing a web application. Containerized app for production environment. Implemented a test plan with JMeter to perform load testing on the server. Reduced tests running time by 75% using parallelization with Jenkins.

Moonbuggy Engineering Team, UPR at Mayagüez – Telemetry Member   **Jan 2019 – May 2019**
- Worked in the development of the backend that processed rover's data, implementing a REST API with Node.js and Express.js. Also collaborated in the Angular frontend for data visualization.

ACTIVITIES:

American Society for Engineering Education – Board Member   **Aug 2018 – Present**
- Visited schools and offered knowledge about different engineering branches. Impacted high school students providing a review of mathematical concepts for the College Board exam. Collaborated in CS workshops.

AWARDS:

Inter-university Programming Competition – 1st Place   **Apr 2020**
- Virtual Programming Competition organized by the Computer Science Students Association at UPR-Bayamon. Finished 1st place out of 31 participants from different universities in Puerto Rico.

Joshua Cruz Cintrón
Computer Science and Engineering Student

Education

**2017-08 -
Current**

Bachelor of Science: Computer Science and Engineering

University of Puerto Rico Mayagüez - Mayagüez, Puerto Rico
GPA: 3.49
Expected Graduation: May 2022

Work History

**2020-02 -
Current**

Full-Stack Developer Intern

Abartyshealth, San Juan, PR
- Developed **Python** scripts to process data from millions of patients and transform it for monthly company reports
- Deployed **Lambda functions** in **AWS** to form pipeline that identifies and sends data of interest to other entities
- Created company support website using **Django** web framework

**2019-11 -
Current**

Backend Developer

RUMBus, Mayagüez, PR
- Increased team productivity, and automated quality assurance
- Created CI/CD pipeline using **Gitlab**, **Docker**, **Jest**, and **Heroku** to test and deploy backend service for client-side teams.
- All changes to source code are now automatically integrated in less than 5 minutes, and tested thoroughly before deployment

**2019-08 -
Current**

Teacher's Aide (Advanced Programming Course)

Computer Science and Engineering Department, Mayagüez, PR
- Collaborate with Professors, and other Aides to provide useful and diverse learning resources for all enrolled students
- Designed challenging class projects for applying core course concepts such as **Object-Oriented Programming**, **recursion**, and sorting using **Java** or **C++**
- Supported programming labs of 25 to 30 students, helping them apply course concepts to programming challenges

**2018-06 -
2019-08**

Confidential Systems Analyst Programmer

General Court of Justice, Mayagüez, PR
- Created web applications using **Python**, **Django**, **JavaScript**, **jQuery**, and **PostgreSQL**
- Developed, tested, and deployed application used by more than 300 Judges in Puerto Rico
- Analyzed and migrated 5 million rows of data from legacy database to new application
- Optimized application testing by designing wrapper for unit testing using **Selenium** Web driver tool

Projects

Curriculum Algorithm (API)
- **RESTful** API that takes the dependencies between courses in a curriculum and traces the shortest path (least semesters) towards graduation

College Housing (API)
- A Restful API that uses GIS to find housing near predetermined colleges and filtering by common features desired by students

Contact

Address
Mayagüez, PR, 00680

Phone
(787) 429-2447

E-mail
joshua.cruz15@upr.edu

LinkedIn
linkedin.com/in/joshuacruzc

WWW
joshuacruz.xyz

GitHub
github.com/Joshuacruzc

Skills

Proficient:
- Python (Django, Flask, pandas, NumPy, SciPy, Matplotlib)
- Software Testing
- Git
- Backend development

Intermediate:
- JavaScript (Node.js, React, jQuery, TypeScript)
- Java
- SQL (PostgreSQL, MySQL)
- HTML & CSS

Experience with:
- AWS (EC2, Lambda, S3, DynamoDB, Batch, etc.)
- Docker
- C++ (OpenFrameworks)

Activities & Volunteer Work

2020 – **Hackathon: "Hack-a-Virus"**
- Create solutions regarding the COVID-19 pandemic. **2nd Place**

2019 – **Computer Science Workshops**
- ASEE initiative for teaching programming fundamentals to high school students **Volunteer.**

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Electrical Engineering

Name	Availability	
	Spring	Summer
• **Alexis Burgos Rivera**	✓	✓
• **Angel Figueroa Davila**	✓	✓
• **Carlos R. Mercado Oliveras**		
• **Carol Ortiz Menéndez**	✓	✓
• **Diego Garcia Robles**	✓	✓
• **Man Tong Sam Chi**	✓	
• **Marlene M Mendez Mendez**	✓	✓

Alexis R. Burgos Rivera

Urb. Santo Tomas #96 calle San Lucas, Naguabo, P.R. 00718
(787)- 988- 5178 alexis.burgos2@upr.edu

EDUCATION:

University of Puerto Rico, Mayagüez Campus
Bachelor's Degree in Electrical Engineering   **GPA: 3.70 / 4.00**
Expected Graduation Date: May 2023

Ana Delia Flores Santana School
Certificate in Electricity   GPA: 3.89 / 4.00
Graduation: May 2017

ACTIVITIES:

Power and Energy Society (PES)
President   **January 2019 – Present**
In charge of the technical, professional and volunteer activities, help students to do their best, assist companies, look for ideas to develop the association, present reports, find funds from interested companies, scheduled meetings and divide tasks.

Power and Energy Society, Mayagüez   **September 2019**
Coordinator, Volunteer
- Provided happiness to homeless people through a breakfast organized by IEEE associations.

Montaña Explora, Naguabo P.R.   **October 2017 – December 2017**
Volunteer
- Maintenance of green areas and acted as a tourist guide assistant in attractions.

Mi Pequeño Albergue, Animal Sanctuary   **August 2017 – September 2017**
Volunteer
- Bathed, fed and provided medications to animals under an expert's supervision.

RESEARCH:

Cultivating Responsible Wellbeing in STEM   **June 2020 – August 2020**
Researcher
- Participated in a symposium as a facilitator, helping the Arenas community in Guanica to identify the design process for a community center.
- Helped to design tree photovoltaic systems with production capacity of 300W, 1kW and 2kW.
- Research the Grid Modernization Plan for P.R. to analyze how many families could it help.

Energetic future for Puerto Rico   **August 2018 – May 2020**
Researcher
- Looked for information about the last places where electricity was restored after Hurricane María to see if a microgrid system was viable.
- Made an analysis of strategic places to place photovoltaic systems for the UPRM with the programs PV Watts and google Sunroof.

Resilience Electric System of Puerto Rico   **October 2017 – February 2018**
Researcher
- Researched for information about how Puerto Rico's electric infrastructure got affected by Hurricane Maria.
- Made surveys on whether the information provided by the AEE was correct.
- Helped set up 1kW photovoltaic systems for communities without electric service after 4 months of Hurricane Maria.

WORKING EXPERIENCE:

Restaurant La Finca, Naguabo P.R.   **May 2017 – July 2017**
Maintenance – Runner
- Kept the restaurant area clean, provided lodging to the warehouse and maintained the floor.
- Brought food to tables, was on the lookout for customers and attended waiters.

Club de Leones, Naguabo P.R.   **July 2017**
Electric Maintenance
- Changed wiring of electric lamps and periodically checked the electrical system.

SKILLS:

- Intermediate Proficiency with Microsoft Word and Microsoft Power Point
- Knowledge reading AutoCAD and hands on residential electrical circuits
- **Knowledge in house Wiring.**
- Considerable knowledge in installing transformers, electric motors and photovoltaic systems

ACHIEVEMENTS:

ePearls program   **August 2018 – Present**
Participant
- Scholarship program for some talented students in which the students can develop leadership through different seminars.

National Society of Collegiate Scholars (NSCS)   **April 2019 – Present**
Participant
- Honor organization that recognizes and elevates high-achieving students.

Skills U.S.A. Electricity Competition   **January 2017**
Competitor
- Made an electric residential installation (two lights controlled from three points, one light controlled with a pilot switch, one ground fault and one simple receptacle) in less than one hour and half.

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Ángel A. Figueroa Dávila

angel.figuedav@gmail.com• angel.figueroa22@upr.edu • https://angelfigueroa22.wixsite.com/misitio

Objective

To obtain experience through internships, COOPs, investigations, and programs for science and engineering.

Education

University of Puerto Rico (UPRM), Mayagüez, PR   Expected Graduation Date: June 2023
Major: Electrical Engineering   GPA: 3.78

Experience

Undergraduate Research, Solar District Cup – Mayagüez, PR   (January 2021- May 2021)
- Participated and won 1st place in the *Solar District Cup: Denver District* competition. Part of a group composed of undergraduate and graduate students, and a professor as guide, all representing UPRM.
- Used tools such as Aurora Solar, and REopt Lite for solar panel and battery system analysis.
- Selected a proper mounting system for the panels according to the conditions of Denver, Colorado.
- Developed design final documentation and pitch presentation for the final delivery and judges.

Undergraduate Research, Design Thinking (Course)– Mayagüez, PR   (January 2021- May 2021)
- Learned and applied the Design Thinking process next to a group of other 5 students from different disciplines. Topic: *How to help college students have a healthy diet?*
- Interviewed over 35 students on their diet, including the development of questions and data management.
- Interpreted information from over 100 interviews, and developed over 100 ideas for the design challenge.
- Developed the selected idea, and presented it in an online exposition to a varied public several times.

Mentor, ePearls – Mayagüez, PR   (August 2020- Present)
- Guide a group of 4 electrical engineering students to advance their educational and professional life.
- Establish effective communication with peer mentors, as well as create workshops for each of our mentees.

Staff, Manager, and Captain of eSports Franchise- International   (February 2020-February 2021)
- Helped create a brand name for an eSports team, while managing and leading its secondary roster.
- Schedule events for players from different countries, as well as contact rival teams from all around the world.
- Efficient manage and creation of Discord servers for communication, and google sheets for statistics.

Employee, Burger King – Arecibo, PR   (May 2019 – December 2019)
- Employed with a part time job, as sales specialist primarily.
- Managed people, from service to complaints.

Skills & Relevant Course Work

- Electronics 1 and Electrical system analysis 3
- Logic circuits and Microprocessors
- Calculus and Differential equations
- Language Skills [Native: Spanish, Secondary: English]

Activities & Awards

1st place Solar District Cup: Denver District- Mayagüez, PR   (May 2021)
- Earned 1st place with UPRM's research team, as an undergraduate student, in the design of a solar energy system, including a storage system for a critical load.

Member, ePearls – Mayagüez, PR   (August 2018 – Present)
- Participate in multiple seminars about topics such as research opportunities, internship opportunities, and introduction to engineering.

Student with Honors, University of Puerto Rico – Mayagüez, PR   (May 2019)

Carlos R. Mercado Oliveras

HC 07 BOX 71155 Arecibo, PR
carlos.mercado4@upr.edu
Cell:939-292-7708

OBJECTIVE

To obtain a full-time role to offer my passion and skills for the company growth and development while increasing my technical knowledge as an Electrical Engineer.

EDUCATION

University of Puerto Rico - Mayagüez Campus	Expected Graduation Date: **December 2021**
Bachelor of Science in Electrical Engineering – Power Systems	GPA: **3.69/4.00**

RESEARCH AND FIELD EXPERIENCE

GE Renewable Energy   **May 2021 – August 2021**

Controls Platform and Interfaces Intern

● Created VBA scripts to standardize the testing and validation process of yaw encoders to improve product quality by displaying the test pass and fail criteria. The scripts allow the user to easily compare the test results with the designed part specs, thus increasing validation speed and the number of tests executed.

● Improved yaw encoder data utilization within the VBA script to enhance the tool efficiency and report accuracy.

GE Renewable Energy   **June 2020 - August 2020**

Wind Turbine Power Performance Intern

● Performed and demonstrated the successful migration of power performance process capability simulations in a new simulation environment.

● Co-lead a training session for the power performance team members to ensure an efficient transition to the new simulation environment.

● Created a dashboard using Tableau to consistently compare, analyze, and track how well simulation results predict measured data.

American Electric Power   **June 2019 - August 2019**

Protection and Control Engineering Intern

● Led the design and engineering of a distribution breaker replacement project for a transmission substation.

● Developed protection and breaker control settings for a 12.5 kilovolts distribution breaker.

● Modeled distribution breaker settings using ASPEN software to enhance protection scheme for substation equipment.

ABB Industrial C&S of P.R. LLC   **January 2019 – May 2019**

Engineering COOP

● Created the necessary documentation for transfer of work from Vega Alta to Arecibo plant.

● Generated assessment for preventive maintenance, spare parts & hardware in preparation to transfer of work.

● Implemented new practices in order to reduce risks to the Vega Alta employees.

Solar Car UPRM   **August 2017 - December 2018**

Wiring, Solar Cells and Battery Team Member

● Actively engaged on the improvement of the electrical connections, sensors and telemetry system of the solar car with the objective of improving data collection and monitoring of the solar car performance.

● Coordinated and improved the design of the solar cell arrays from 2016 solar car to ensure the success of current project's standards.

National Society of Professional Engineer - UPRM   **August 2016 - May 2017**

Outreach Associate

● Led all the logistics for the preparation of the Plan Design Perform (PDP) challenge in order to improve its organization and time management.

● Organized outreach activities to students ranging from 8th - 12th grade to increase interest and engagement into pursuing STEM related careers.

● Coordinated and collaborated the funding sales for the PDP challenge and accomplished a $100.00 profit for the NSPE.

Carol Ortiz Menéndez

Contact: carol.ortiz3@upr.edu , E-portfolio , LinkedIn

Current Address:	**Permanent Address:**
Las Flores Street Cond Escorial 1	HC 4 Box 14118 Arecibo, PR 00612
Mayaguez PR, 00680	Phone: (939) 254-3756

OBJECTIVE: Looking for an internship/coop or research experience in Electrical Engineering to apply knowledge and skills in a challenging environment to grow professionally and intellectually.

EDUCATION: **University of Puerto Rico Mayagüez Campus** **Aug 2017-Present**
Bachelor's Degree in **Electrical Engineering**
GPA 3.08   Expected Graduation Date: May 2022

RELEVANT COURSES:

- Logic Circuits
- Circuit Analysis 1 & 2
- Programming & Algorithms
- Materials Science
- Calculus 1,2 &3
- Differential Equations
- Electronics & Laboratory
- Microprocessors and Embedded Systems
- Electromagnetics

PROJECTS:

Fourier Ptychography microscope inside of a multi-cell well plate using a Miniature Illuminator Module **May-July 2019**
-Nanotechnology and Biomedicine REU in University of Georgia Athens

- Developed a Fourier Ptychographic microscopy system which enables multicolor label-free imaging of cells inside of a multi-well plate
- Communicated with a Host-Processor and digital light processor (DLP) projector to produce the patterns of illumination required for high-resolution reconstruction of images
- Generated a code that projected images of patterns like dots and lines

Brain Computer System (BCI)   **Undergraduate Research Assistant** **January 2019**

- Conducted research in **signal differentiation in EEG** (electro-encephalogram)
- EMG (electromyogram) signal removing
- Stimuli differentiation between different mental states

Skills USA Nationals Competitions, Robotics and Automation Technology (7/17)   Lead Programmer   Nov 2016-June 2017

- Created **autonomous program** of an Automated Arm (Scorbase 4uR)
- Designed flowchart program and collaborated with required documentation.
- Created **Siemens PLC** (Programmable Logic Controller) program and logic manufacturing line production

EXPERIENCE:

Antonio Lucchetti High School Electronics Workshop **Aug 2014-May2017**

- Managed basic electronic stations (DC and AC current, motors, electromagnetic, switching, sensors)
- Welded electronic circuits and Robotics Control Systems

Publications: C. Ortiz, R. Carlyle, K. F.Tehrani, L. Mortensen, " Fourier Ptychography Microscopy inside of a multi-well-plate using a Miniature Illumination Module" Poster at Biomedical Engineering Society (BMES) 2019 Annual Meeting, Philadelphia, PA October 16-19, 2019

- University of Georgia Athens Poster Presentation **July 2019**
- Biomedical Engineering Society Conference **October 2019**
- NSF EEC Grantees Conference **October 2019**

RECOGNITIONS:

EPEARLS, National Science Foundation (NSF) Scholarship   Selected student (100/3000)
November 2018

- Receiving mentoring and guidance in the engineering field
- Commitment to a high standard progress and GPA in the electrical engineer bachelor's degree

First place statewide Robotics and Automation   Programmer **November 2017**

- Achieving more than 80% on technical and theorical examinations

TECHNICAL / NON-TECHNICAL SKILLS:

- Fluent in Spanish and English
- Public Speaking and Leadership
- Teamworking
- Proficient in: Scorbase, Siemens, C and Python software programming
- Basic knowledge in AutoCAD

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Diego A. García Robles

• diego.garcia5@upr.edu • (787)-223-0754 • RR1 BOX 2068, Añasco, PR 00610

Objective

To obtain an internship where I can learn more about and work with control systems.

Education

Pursuing a Bachelor of Science Degree in **Electrical Engineering**
University of Puerto Rico, Mayagüez Campus (UPRM)
Graduation GPA: 3.22
Year: 4th Year

Relevant Coursework: Analysis of Linear Systems, Intro. to Control Systems, Electric Machines, Microprocessors, Power Electronics II, Circuit Analysis III, Logic Circuits, Signals and Systems

Projects

Industrial Affiliates Program Project on FPGAs

- The goal of the research project was to develop an open-source library of complex floating-point arithmetic operator cores written on VHDL for FPGAs. Two different FPGAs were used for testing (Xilinx's Basys 3 and Altera's DE0-CV) to compare and determine which FPGAs architecture was better suited for performing complex floating-point arithmetic operations.

- I worked with the Altera DE0-CV and have transferred basic floating-point arithmetic cores to the Quartus library and tested these along with their complex counterparts.

Organization

- Engineering PEARLS
  - o I am a member of the Program for Engineering Access, Retention and LIATS Success (PEARLS), a college-wide engineering initiative sponsored by the National Science Foundation. This program provides its members with mentors, workshops, soft-skills training, research opportunities, social events, etc.

  - o While I have been a part of this program, I have been learning about the different aspects of engineering, business, and economics, while also being part of a research project detailed above and getting to know different companies and start-ups through organized events and recommendations.

Skills

- **Programming Language:** VBA, VHDL

- **Software:** Microsoft Office, LTspice, Quartus

- **Hardware:** Oscilloscope, Digital Multimeter, Function Generator

- **Languages:** Fluent in English and Spanish

Work History

Pre-Calculus/Calculus Tutor – Mayagüez, PR   2016 –2017, Summer 2020
- Assisted students in pre-calculus and calculus classes who had difficulty understanding the subject and prepared them for their upcoming exams.

Man Tong Sam Chi

mantong.sam@upr.edu • (787) 210-2659 • San Juan, PR • linkedin.com/in/mantong-sam • mantongsam.wixsite.com/mysite

Objective
Obtain internship or co-op in Electrical Engineering or related fields

Education

University of Puerto Rico, Mayagüez Campus   Expected Graduation Date: May 2023
Bachelor of Science in Electrical Engineering   GPA: 3.42/4.00
Minor in Computer Science and Engineering

Relevant Coursework

- Intro. to Control Systems
- Microprocessors I
- Electrical System Analysis III
- Electronics II
- Statistics and Probability
- Economic Analysis

Leadership Experience

Institute of Electrical and Electronics Engineers (IEEE-UPRM)   September 2018 – Present
Circuit and Systems Directive Member (*CAS*)
- Developing leadership and management skills by organizing technical and company-related activities. These activities include PCB Design and soldering, Circuits 101, PSpice seminar, and among others
- Take photographs and video of activities. Create photo and video albums

Extracurricular Experience and Projects

RUMarino   May 2019 – Present
Team Member
- Researched a visual communication system utilizing LED lights in order to troubleshoot and debug the AUV's software
- Developed a custom PCB for visual communication system for Arduino Nano board
- Documented and organized photos for the implementation of machine learning in AUV
- Awarded 15th place out of 54 in the 2019 Robonation's Robosub competition hosted in San Diego, California

Program for Engineering, Access, Retention, and LIATS Success (PEARLS)   October 2018 – Present
Active Member
- Selected for program that helps students with low financial income strive for success with the necessary tools and in-depth guidance from professors and mentors
- Participate in activities, seminars, and semester courses on the development of engineering skills such as: Introduction to Research, Plagiarism and Academic Honesty, Career Planning, Managing Budget, and Library Research Methods

Washing Machine Controller   December 2019
Class Project
- Designed a washing machine controller circuit design with two different washing and 3 different speed settings utilizing counters, switches, D-Flip Flops, and LED lights
- Tested the design with different configurations and speeds utilizing LogicWorks circuit design tool software

Coqui Audio Signal Noise Reduction   March 2020
Class Project
- Utilized MATLAB to remove background noise utilizing approximating of ideal, linear phase, and low-pass filter and isolated the coqui calling signal utilizing approximation of ideal, linear phase, band-pass filter.
- Documented the complete process of the project and wrote final report.

Relevant skills
- Beginner in C/C++, Assembly, MATLAB, Python, Java, ROS, Microsoft Office and Photoshop
- Beginner in Eagle, Cadence PSpice, Fusion 360
- Fully Bilingual in English and Spanish

Honors
- PEARLS Scholarship, Present
- National Society of Collegiate Scholars, 2019 – Present
- IEEE HKN Honor Society Member, 2019-Present
- Boeing Academic Excellence Scholarship, 2019

Marlene M. Méndez Méndez

Hc 01 Box 4778, Camuy, P.R. 00627| (787) 328-8578 | marlene.mendez@upr.edu |

EDUCATION

University of Puerto Rico, Mayagüez   **EXPECTED** 05/2023   Mayagüez, PR
BS. Major in Electrical Engineering   GPA: 3.08/4.0
Courses: Calculus (I, II, III), Physics (I, II, and labs), Chemistry (I, II, and labs), Circuit Analysis I
Electronics Workshop, Antonio Lucchetti Vocational High School (08/15 – 06/18)   GPA 3.88/4.0

PROFESSIONAL EXPERIENCE

Southeastern Undergraduate Internship in Nanotechnology (SUIN) REU   06/2021 – Present
- Undergrad Research Experience in Nanotechnology at Georgia Institute of Technology.   **(Atlanta, GA)**

Student, NASA Lucy Student Pipeline Accelerator and Competency Enabler   01/2021 – 04/2021
- Proposal Writing and Evaluation Experience (NPWEE) Academy Spring 2021. Working with a team learning how to effectively write a proposal to turn an innovative idea into reality.
- Selected as one of the winning proposals of the spring academy, we will be receiving $10K to further the research and development of our idea.

Student, NASA Lucy Student Pipeline Accelerator and Competency Enabler   08/2020 - 12/2020
- Mission Concept Academy Fall 2020. Part of the science division conducting research of Enceladus atmosphere and the characteristics of the system, subsystem overview, and payload success criteria.

Secretary, Society of Women in Space Exploration (*SWISE UPRM*)   08/ 2020 – 05/2021
- Secretary of the organization

Mentor, ePearls PLTL Mentorship Program   05/2020 – 03/2021
- Mentor of the PLTL program that focuses on promoting team learning, peer leadership, the use of problem-solving techniques, promotes critical thinking, among others.

Secretary, American Society for Quality (*ASQ UPRM*)   01/2019 – 05/2019
- Secretary of the organization

AWARDS AND HONORS

Program for Engineering Access, Retention, and LIATS Success (ePearls)   10/2018 - Present
- Awarded with a scholarship in the program sponsored by NSF, helps students in all engineering disciplines to successfully complete their study programs.

Competitor, Robotics and Automation Technology National Competition   04/2018- 06/2018
- First place at the state level and participate in competitions at the national level.

LEADERSHIP EXPERIENCE

Staff, American Society for Engineering Education (*ASEE UPRM*)   11/2019
- Participated in the activity that seeks to promote the engineering careers offered at UPRM.
- Part of the Civil and Surveying Engineering staff at the Engineering Fun Day where we talk about their offers in this field and execute a dynamic of these careers.

Staff, Society of Hispanic Professional Engineers (*SHPE UPRM*)   02/2019
- Part of the staff at the Engineering Diversity General Expo (EDGE) Activity.
- Assisted organizing students, distribution of lunches, and part of the activity registration area.

ADDITIONAL INFORMATION

- **Technical Skills**: MS Suite, Canva, robotics, digital electronics, Arduino.
- **Languages**: Fluent in Spanish and English.
- **Online Courses and Certificates:** Python for everyone Certificate (UM/edX)
- **Volunteering**: Volunteered 65 hours during a month at CS4 Girls Academy in the University of Puerto Rico at Arecibo (2017)

REFERENCES

Available upon request.

Engineering Science and Materials

Names	Availability	
	Spring	Summer
• **Shyla M. Lugo Moran**	✓	✓

Shyla M. Lugo Morán

(787) 235-7090 | P.O. Box 182 Las Piedras, P.R. 00771| shyla.lugo@upr.edu

OBJECTIVE

Obtain a full-time opportunity in which I can relate my Chemical and Materials Science Engineering skills and knowledge for the benefit of the company.

EDUCATION

MA Materials Science and Engineering   *January 2020- Present*
University of Puerto Rico, Mayagüez Campus
(GPA 4.00)
BS Chemical Engineering
Curricular sequence in Engineering Sciences and Materials   *December 2019*
University of Puerto Rico, Mayagüez Campus
Related Courses: Bioreactor Engineering; Introduction to Materials Characterization; Polymer Engineering; Stability and Processing of Materials; Structure ang Properties of Materials

EXPERIENCE

Instructor   *January 2020- Present*
- *Lecture the fluids mechanics laboratory and familiarize students in the subjects of laboratory safety and report writing*
- *Proofreader of reports and quizzes*

Teacher Assistant   *January 2020- Present*
- *Proofreader of assignments, quizzes and tests for the Engineering Materials undergraduate course*

Master's Thesis   *August 2019- Present*
- *Fabricate tensile specimens*
- *Prepare nanoparticles*
- *Study the Portevin-Le Chatelier (PLC) phenomenon in aluminum-magnesium alloys and the effect of adding nanoparticles*

EXTRACURRICULAR ACTIVITIES

- American Chemical Society (ACS)   *August 2015- Present*
- Material Advantage Bulldogs Camp Voluntary Work   *April 2017*
- American Institute of Chemical Engineers (AIChE)   *August 2015- May 2016*
- Pre-Engineering Summer Camp   *Summer 2012*

SKILLS

Technical
- Aspen Plus
- Microsoft Office Suite

Non-technical
- Fully Bilingual in English and Spanish
- Vario-Planetary Mill Pulverisette

Industrial Engineering

Name	Availability	
	Spring	Summer
• **Bryan S. Ortíz Torres**	✓	
• **Cristina Bonilla Cruz**	✓	
• **Frederick Y. Gonzalez**	✓	
• **Isabel López Victoria**	✓	
• **Loaiza Medina Perez**	✓	✓
• **Rosa Laureano Marrero**	✓	✓
• **Ruben Lopez Gonzalez**	✓	✓

Bryan S. Ortiz-Torres

bryan.ortiz4@upr.edu | (787) 202-2024 | linkedin.com/in/bryan-ortiz-torres

PROFESSIONAL PROFILE

Industrial Engineering undergraduate student with interest in Statistical Learning, Quality Control & Production Control.

EDUCATION

University of Puerto Rico, Mayagüez Campus (UPRM)   Expected Graduation: May 2021
BS in Industrial Engineering   **GPA**: 3.62/4.00 **Major GPA**: 4.00

Relevant Courses

- Applied Statistics
- Statistical Quality Control
- Design of Experiments
- Production Control
- Operations Research
- Economic Analysis
- Work Measurement
- Ergonomics

WORK EXPERIENCE

MPS Supply Chain Coop - Merck, Las Piedras   *January 2020 – Present*
- Developed a standard and sustainable approach methodology to improve laboratory efficiency and lead time up to **90%** while reducing overtime costs for at least **80%** as part of a global initiative to achieve world class performance.
- Enhanced communications channels between manufacturing and quality divisions by designing a more efficient tier process.
- Applied and analyzed KPI's of the laboratory and worked in the creation of Bill of Materials.

Work Measurement Project Student – Villa Design, Aguada   *August 2019 – December 2019*
Advisor: Dr. Cristina Pomales
- Proposed an entire time study, a layout design and a prediction model to standardize work and establish compensations in order to improve the company's profits and performance.

Ergonomics Project Student - INDULAC Inc., San Juan   *January 2019 – May 2019*
Advisor: Prof. Glorimar López-Roldán
- Developed an ergonomic evaluation of one of the industry's tasks using **RULA**, **REBA** and **NIOSH** equation to propose recommendations considering the limits and capacities of the institution as a whole.

RESEARCH

Automated Cut-off Feature Selection Approach   *August 2020 – Present*
Research Advisor: Dr. Wandaliz Torres García
- Currently working on a research area that aims to fine-tune an automatic cut-off feature selection methodology.

Molecular Characterization of Chimeric Antigen Receptor T-Cells   *August 2019 – May 2020*
Research Advisor: Dr. Wandaliz Torres García
- Intending to characterize important attributes of cellular therapies that will help monitor safe and potent treatments early in their manufacturing process implementing unsupervised learning techniques to assess donor-to-donor variability.

LEADERSHIP EXPERIENCE

Industrial Engineering Councilor, **Faculty of Engineering Students Council**   *August 2018 – Present*
Mentor, **Peer-Lead Team Learning (PLTL)**   *February 2019 – December 2019*
Student Guidance Counselor, **Counseling and Psychological Services Department**   *May 2017 – Present*
Project Management Coordinator**, Colegio Racing Engineering – FSAE UPRM**   *August 2018 – December 2018*
Services & Logistics Coordinator, **SHPE-UPRM**   *January 2018 – May 2018*

HONORS AND AWARDS

Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP)   *August 2019 – Present*
- Receiver of a scholarship sponsored by NSF that aims to help undergraduate STEM students continue graduate studies.

Engineering Pearls Program   *October 2018 – Present*
- Chosen among **90** of **2,000+** students to be part of a college-wide initiative sponsored by NSF to receive individualized career mentoring, soft-skills training and peer-mentor activities.

OPPS University of Wisconsin-Madison   *November 2019*
- Selected to receive academic and professional development workshops to enrich graduate school admissions.

Goldman Sachs Exploratory Program 2019   *March 2019*
- Selected among **90** of the **3,000+** applications from all the United States to participate in career workshops, network with professionals, and develop my leadership skills.

Credicentro Coop Scholarship   *August 2016*
- Received an academic scholarship for having an outstanding academic result and promoting cooperative values.

SKILLS

Statistical Tools: R Studio, Minitab   Languages: Spanish (native), English (proficient)
Programming: Python (beginner), C, MATLAB & Lingo
Applications: Microsoft Office
Trainings: GMP's, Data Integrity, Industrial Safety

Cristina M. Bonilla

cristina.bonilla2@upr.edu

(939) 265 -8015

https://cristinabonilla2.wixsite.com/misitio

OBJECTIVE

To obtain an internship or coop opportunity in Industrial Engineering or related fields to gain knowledge and hands-on experience within a professional environment.

EDUCATION

University of Puerto Rico, Mayagüez Campus   Expected Graduation Date: May 2022

Bachelor's Degree of Science in Industrial Engineering *(4th Year)*   GPA: 3.37/4.00

HONORS

Alpha Pi Mu Industrial Engineering Honor Society Member	*January 2021 - Present*
Program for Engineering Access, Retention, and LIATS Success (ePEARLS) - Scholarship	*October 2018 - Present*
Industrial Engineering Honor Roll	*August 2017 – December 2019*

RELEVANT COURSES

Economic Engineering Analysis, Work System Design, Probability and Statistics for Engineers, Algorithms and Computer Programming, Engineering Graphics and Materials, Databases and Information Systems, Fundamentals of Project Management

PROFESSIONAL EXPERIENCE

Arecibo Observatory Radiation Pattern Measuring Drone   *January 2020 – June 2021*
- *Project Manager and Co-Leader (Undergraduate Research at UPRM sponsored by MIT-LL)*

Peer-Lead Team Learning Mentor (ePEARLS Program sponsored by the NSF)   *February 2020 – May 2021*
- *Mentor of four students to help guide them with the program's activities and requirements*

Program for Engineering Access, Retention, and LIATS Success (ePEARLS)   *October 2018 - Present*
- *Scholar*

American Society for Engineering Education   *January 2019 - January 2020*
- *Active member (Leading Staff in activities)*

Society of Hispanic Professional Engineers (SHPE-UPRM)   *August 2017 - January 2018*
- *Active Member (Participant of meetings, activities, and workshops)*

WORK EXPERIENCE

ISOLINA POP – Centro Sor Isolina Ferré, San Juan, Puerto Rico

Customer Service Representative   Summer 2018

EXTRA-CURRICULAR ACTIVITIES

Project: Ergonomic Evaluation in Industry   August 2020 - January 2021

Group Member
- Medtronic, Villalba, Puerto Rico

Capstone Project: Bottleneck Inspection in Warehouse   January 2019 - May 2019

Mentee and Team Member
- Abbot, Arecibo, Puerto Rico

Scuba Dogs Society   Spring 2017

Volunteer and Group Leader
- Beach and community cleaning, administrative work

SKILLS

- Fully bilingual
- Intermediate in Python, MatLab, Visual Studio 2019, Sketchup, R, Minitab, MySQL and AutoCad
- Proficient in Microsoft Office, such as: Word, Power Point, Excel, and Project
- Ability to work with efficiency in groups and communicate effectively

Frederick Y. González Román

(787) 960-2203 **|** frederick.gonzalez@upr.edu

EDUCATION

University of Puerto Rico, Mayagüez Campus	**Expected Graduation Date: May 2022**

Bachelor of Science in Industrial Engineering — GPA: 3.64/4.00
Minor in Project Management

Lean Six Sigma Yellow Belt Certification — **August 2019**
- Awarded after completing White Belt training, as well as executing various Kaizen events, accomplishing the objectives of the sponsor and successfully carrying out two relevant projects in the industry

WORK EXPERIENCE

Eli Lilly and Company – Carolina, PR — **Jan 2021 – Present**
Productivity Engineering COOP – Competitive Continuous Improvement Department
- Designed and performed a series of sampling studies in the Fermentation and Culture Lab manufacturing areas to analyze operator utilization, identify areas of opportunity, and improve productivity
- Developed a regression model capable of predicting the optimal number of operators to maximize utilization and support production over different Start-to-Start scenarios of the production
- Co-Facilitated a 5S & 8W Lean Manufacturing training session for the Spring term's COOPs

U.S. Department of Homeland Security – Remote — **Jun 2020 – Aug 2020**
DHS Summer Research Team Program for Minority Serving Institutions - Individual Emergency Response and Recovery: a learning experience from Puerto Rico's encounter with Hurricane Maria
- Developed a mathematical model utilizing inventory control framework in order to maximize the wellness level of an individual throughout the first 48 hours of a hurricane
- Created and developed the *Individual Wellness Inventory Level Log (iWILL)* mobile application for the model, which provides a checklist of solutions based on submitted events to improve the individual's decision-making process, wellbeing, and overall wellness level during disasters
- Paper of the project was accepted for publication in the Journal of Emergency Management (JEM) and team was awarded a $50k grant by the DHS to continue research project

Becton Dickinson (BD) – Humacao, PR — **Jun 2019 – Aug 2019**
Engineering Intern – Summit Kaizen Competition: First Place
- Used Lean Six Sigma methodology to remodel the company's Tier meetings' structure in order to increase their effectiveness; standardized manufacturing lines' dashboards utilizing the SQDCI metric
- Optimized gowning area layout to maximize space utilization, and gowning clothing to reduce time waste
- Improved gowning laundry process achieving $58k in annual savings

LEADERSHIP EXPERIENCE

Loxodon-1's Test Stand Department – Alpha Astrum — **Aug 2020 – Present**
Safety Manager
- Active member of a team designing, manufacturing, and testing Puerto Rico's first liquid rocket engine
- Evaluated safety hazards, performed risk assessments, Fault Tree Analyses, and FMEAs to ensure the safety of the personnel and equipment during manufacturing and hot fire testing of the engine

Engineering Faculty Student Council - UPRM — **Aug 2018 – Jun 2020**
Secretary of Finance; Councilor
- Represented over 5,000 engineering students at UPRM
- Reviewed and amended the Internal Regulations of the body as part of the Law and Regulations Committee
- In charge of keeping the Council's safe and finances in order

ACADEMIC WORK

Optimization Driven Biological Discoveries Research – UPRM — **Jan 2019 – May 2020**
Gene Analysis Between Dengue and Parkinson's disease
- Aim to analyze the genes in common, their behavior and their possible relation due to the diseases' frequency in the tropic
- Use of Excel, RStudio and MatLab to filter and analyze data bases of genetic information

SKILLS

- Intermediate knowledge in statistical software: Minitab, RStudio, Excel, StatFit, Lingo
- Intermediate knowledge in Python and MatLab programming languages
- Proficient on MS Office, G-Suite, SketchUp, and Microsoft PowerApps
- Basic knowledge on AutoCAD
- Teamwork and leadership skills
- Fully Bilingual (English - Spanish)

Isabel M. López de Victoria Martínez

isabel.lopezdevictoria@upr.edu / (787) 925-2964

OBJECTIVE: Seeking challenging Internship/COOP that will help develop my knowledge in business, data analyzing, optimization & project management.

EDUCATION:

University of Puerto Rico- Mayagüez Campus   **GPA 3.30/4.00**
B.S in **Industrial Engineering**   Expected Graduation: **May 2022**

PROJECTS:

"Equipo Canoa de Hormigón", University of Puerto Rico (UPRM)   **May 2020-Present**
- Working as a member of the **Project Management** department of the team.
- Responsible for organizing the working time for each area of the team.
- Develop the projects structure through a research paper.

Accenture Summer Analyst, Tampa Bay Office   **June 2020-Aug 2020**
- Selected to work on the **Miami-Dade County Informs Project** as part of a summer internship experience.
- Assisted the **Supply Chain Management** team in the **testing and training departments**
- Helped implement **Oracle PeopleSoft ERP** systems and developed end-user training materials.

The Applied Optimization Group, University of Puerto Rico (UPRM)   **Aug 2019-May 2020**
- Responsible for designing and manufacturing a practical sitting chair made from tennis balls.
- Lead a team of three people through the developing process.

Ergonomic Analysis, "Cervecera de Puerto Rico"   **Oct 2019-Dec 2019**
- Analyzed the efficiency of the beer barrel refill process in the brewery.
- Worked alongside the company's engineers and two other students.

LEADERSHIP EXPERIENCE:

Institute of Industrial and Systems Engineers (IISE), University of Puerto Rico (UPRM)   **Sept 2019-Present**
- Selected alongside 20 students for the Institutes Mentorship Program.

Society of Hispanic Professional Engineers (SHPE), University of Puerto Rico (UPRM)- CHAMPIONS   **Aug 2019-Present**
- Responsible alongside **50 students** to attend and help companies visiting the university.
- Organize activities by reserving classrooms and gathering anything that is needed.

Program for Engineering Access, Retention, and LIATS Success, University of Puerto Rico (UPRM)   **Dec2018-Present**
- Applied alongside more than **700 students** and was chosen along with other **150 students.**
- Engineering fellowship designed to help students complete successfully their studies and transition into professional life.
- Receive mentoring from the top Engineering professors in UPRM.

Economic Community Summit (ECOS), University of Puerto Rico (UPRM)-**VOLUNTEER**   **Sept 2019**
- Responsible of organizing and setting up the activity for **250 students** alongside a group of 20 students.
- Worked alongside **2 companies** assisting them in the activities they will be presenting to the students.

Capital One Ignite Development Program Selectee,   **Aug 2019**
- Invited to attend a half-day program focused on developing skills in interviewing, networking, and personal branding.
- Problem solving mock interview cases.
- Networked with senior level executives and associates.
- Obtained skills to help further my recruiting success.

VOLUNTEER WORK
- Provided resources in the restoration process of the University of Puerto Rico, after the **catastrophic** hurricane Maria. Cleaned and dispensed the debris left from the hurricane scattered through the campus with a small group of **15 students** from October 2017 till December 2017.
- Participated in various volunteer work activities cleaning garbage and debris in small communities. Recollected firsthand necessity items to donate for a shelter home for children alongside my sorority Eta Gamma Delta (ΗΓΔ).

SKILLS:
- Proficient in MS Office Suite
- Minitab
- Moderate Python
- Bilingual (Spanish-English)

LOAIZA G. MEDINA PÉREZ

| (787) 981-2741 | loaiza.medina@upr.edu | Parcelas Soledad Calle J Buzón 1409, Mayagüez PR 00680 |
https://loaizamedina.wixsite.com/portfolio

EDUCATION

University of Puerto Rico, Mayagüez Campus | Estimated Graduation Date: May 2021
Bachelor of Science in Industrial Engineering | GPA: 3.62/4.00

AWARDS

Engineering Pearls Scholarship | August 2018
- Program Sponsored by the National Science Foundation.

RELEVANT COURSE

Engineering Economic Analysis (Inin4015) | January 2019 - May 2019
- Understand the minimum attractive rate of return (MARR) established. Interpret different money, time, interest and compounding quantities and identify the factors to make them equivalent. Use data in the before tax calculations necessary to rank alternatives using the break-even, equivalent annual costs, present worth, rate of return, or benefit.

Probability and Statistics for Engineers (Inin4010) | August 2019 – December 2019
- Describe data, draw practical conclusions on the basis of engineering data; and the theoretical and applied background needed to understand and effectively use probability and statistical models.

WORK EXPERIENCE

CITAI Research Project, Bananera Fabre, Sabana Grande, PR | June 2019 – October 2019
Optimization Analyst
- Established a new route to collect the banana crops in which the process can be accelerated and thus reduce costs.
- Memorize the farm's blueprint in order to explain to the main researcher where the transportation wires should be installed.
- Research and develop reports for the main researcher.

Dr. Rivera Bericochea, Dentist Office, Mayagüez, PR | October 2016 - August 2020
Receptionist
- Received around 60 daily patients and organized their paperwork.
- Verified they had their medical insurance up to date and were qualified patients.
- Settled their accounts and scheduled new appointments.

Cómplices Store, Mayagüez, PR | May 2019 - September 2019
Customer Service Assistant
- Attended the public by answering their question and helping them with their shopping.
- Handled the cash register and tallied the day's earning.
- Organized and ordered the stores supplied to make it a welcome environment for shoppers.

EXTRACURRICULARS

Engineering Pearls, UPR-Mayagüez | August 2018 - Present
Member
- Chosen from around 1000 students, having achieved a successful interview and having a very high GPA.

SKILLS
- Computer: Microsoft Office 2016
- Languages: Spanish, English and **Python**
- Basic Records Management

ROSA M. LAUREANO-MARRERO

Mayagüez, Puerto Rico 00680 | **(787) 446-5443** | **rosa.laureano@upr.edu**
https://rosamlaureano.wixsite.com/rosalaureano

Education

University of Puerto Rico, Mayagüez Campus   **Expected Graduation:** Dec 2023
Bachelor's Degree in **Industrial Engineering**   **General GPA: 3.30/4.00**

Relevant Courses

- Probability and Statistics for Engineering
- Cost Analysis
- Applied Statistics for Engineering
- Economics
- Algorithm and Programming

Academic Experience

Researcher, *Smart Crosswalk Light Implementation*, *Morgan State University*   June 1 – July 27
- REU experience Investigating and implementing an automatic intelligent crosswalk light based on automatic extraction of the density of vehicles and pedestrians using computer vision and machine learning techniques for vision-based traffic.

Co-founder and Logistic Director, *BLAST-UPRM, UPRM*   May 2021 - Present
- Participate in the development and design of a Fishing Aggregating Device (FAD) for Bluetide
- Coordinate projects, educational and research activities based on the principles of the blue economy.

Project Management Leader, *UAV Honeywell Navigation Challenge, UPRM*   Aug 2019 – Dec 2020
- Assigned action items for team members to address all deadlines and task needed to be performed to accomplish the result.
- Performed Risk and Opportunities analysis using NASA standards to enhance the quality and execution of the project.
- Developed Gantt chart to manage the different and members data base system to keep it up to date.
- Managed budget allocation reports and managed team finances (**$2,000**) to make sure that are used in the optimal way.

Extracurricular Activities

PLTL Mentoring Program   Jan 2020 – May 2021
- **Mentor 5** students making sure they have support and guidance in gaining professional and academic experiences.

President ASQ UPRM   Jan 2019 – May 2021
- Manage and guide a team of **8** while making sure their development and necessities are being addressed.
- Designed and restructured the board of directors to make sure members are getting the tools and skills required to be successful as professionals.

Honors, Awards & Certificates

Program for Engineering Access, Retention, and LIATS Success   Aug 2018 - Present
- Selected to participate in program along with ~**50** students.
- Developing soft skills, finance management, technical skills, and research skills to have all what an engineer needs to have to be successful.
- Scholarship and program sponsored by the **NSF.**

National Society for Collegiate Scholars   Jan 2019 - Present
- Honors organization that recognizes high-achieving students. Provides career and graduate school connections, leadership, and service opportunities.

Work Experience

Criollo Center for Science and Technology of the Caribbean, Caguas   Sep 2020 – May 2021
- **Educator** providing educational assistance and workshops to students of all ages in the subjects of mathematics, science, and technology.
- **Tour Guide** of the Permanent Exhibition of the Center, managing 20 people per group and making sure all the doubts are clarified.

Volunteer Experience

Bluetide Volunteer, Fajardo PR   January 2021 - Present
- Coordinate and participate in Volunteering Activities.
- Diver volunteer for researcher purposes.

Skills

- Languages: Bilingual (English and Spanish)
- Software skills: **Microsoft Word**, **Power Point**, **Excel**, **Python** and **Minitab**

Rubén A. López González

ruben.lopez8@upr.edu / (787)-328-4030

Education:

- University of Puerto Rico Mayagüez Campus **|** B.S. in Industrial Engineering   **GPA: 3.54**
- University of Puerto Rico Mayagüez Campus **|** Minor in Project Management   **GPA: 4.00**
- Relevant courses: Engineering Graphics I, Algorithm, Data Base, Applied Static Mechanics, Probability & Statistics
- Expected Graduation Date: May 2022

Work Experience:

Santa Ana Mini-Market & Bakery **(***Managing Assistant***)**   **January 2016- Present**

- Monitor customer service to ensure complete customer satisfaction
- Train all new employees in various areas of the business
- Approve, administer, and assess pay roll for all employees
- Supervise shipments and discharges of merchandise

Precision Prototypes and Components - Inteldot (*Professional Services*)   **September 2019- December 2019**

- Researching and analyzing data, case studies, and laws
- Contacting government agencies for research purposes
- Conduct Statical analyses of data set

Watric Energy Resources (*Intern*)   **February 2019-December 2019**

- Created exposure for the company by taking charge of the company's social media account
- In charge of documentation which secured a major sponsor for the company

Banco Popular de Puerto Rico – Business & Process Improvement (*Summer Intern*)   **June 2019- August 2019**

- Created preauthorized roles to reduce the lead time of provisioning accesses to employees
- Presented the newly created preauthorized roles to the CEO and major executives with the objective of improving granting accesses for the bank
- Hand in a deliverable as documentation of the process for its duplication in any other area of the bank

Project Management Experience:

Interdisciplinary Approaches to Project Management | INME Mega-Section Classroom Remodeling   **August 2019-December 2019**

- Collaborated in the remodeling of the Department of Mechanical Engineering's amphitheater utilizing project management theories and methodology
- Created estimated costs, project risks, schedules and fish bones to present to the sponsor
- Utilized AutoCAD for the creation of project plans and visualize potential improvements to the space
- Participated in a final presentation for the sponsor's approval; approval was achieved

Affiliations:

Moonbuggy Engineering Team (*Project Manager*)   **October 2018-January 2020**

- In charge of planning, organizing, and executing logistics for fundraising events
- Secure four major sponsors for the team; provide monthly reports of the team's progress and expenses
- Responsible for allocating and providing housing and transportation for 20 team members in the annual NASA Human Exploration Rover Challenge
- Took charge and developed the biggest product sale of the team by raising $1,500

Institute of Industrial & Systems Engineers (IISE)   **August 2018-December 2019**

- Attended the annual Conference of Industrial and Systems Engineers and showcased networking skills by approaching and conversing with scholars and professionals in the field

Family, Career and Community Leaders of America (President)   **August 2013- 2014**

- Planned events to fundraise for the graduation.
- Assisted communities with great needs.

Awards and Certifications

Engineering Pearls

- Scholarship sponsored by the National Science Foundation.

Leaders Emerging at Popular | Banco Popular of Puerto Rico

- Certificate for successfully completing the summer internship

Volunteer Work:

Mayaguez Heritage Protective Society (*Event Coordinating Assistant*)   **August 2017- Present**

- Plan and organize events for the promotion of Puerto Rican heritage in the community

"Recycling for a Better Campus" (*Treasurer)*   **January 2019-Present**

- In charge of collecting materials needed to make the project possible and securing donations for the event
- Monitored all cash flow and expenses for the event's completion

Skills:

Languages: Fluent in English and Spanish

Technological: Microsoft Office programs, QuickBooks and basic concepts in AutoCad, BVA, Regular Expressions, Power BI and SQL.

Sales: Can sell any product and interact with clients so that they feel satisfied and well attended

Social: Great communication and collaborative skills; ability to work as a team

Leadership: Demonstrate flexibility, critical thinking, ability to speak in front of people, and decision-making skills to lead a group of people

Mechanical Engineering

Name	Availability	
	Spring	Summer
• Adriana M. Muñoz Soto	✓	✓
• Edmarie Sánchez Gerena	✓	✓
• Elderson Mercado Rivera	✓	✓
• Gadiel Rodríguez Díaz		
• Jean Carlos Toro Correa	✓	✓
• Jonathan G. Fernandez	✓	✓
• Karla Deida Villafañe	✓	✓
• Leticia Diaz Torres	✓	✓
• Luis Mañan Mejias	✓	✓
• Michael Hernández	✓	
• Xiomara Varela Morales	✓	✓
• Yasmarie Torres Paneto	✓	✓

Adriana Marie Muñoz Soto

adriana.munoz2@upr.edu
LinkedIN-adrianamunoz2
(787)-320-6023

EDUCATION

University of Puerto Rico - Mayaguez Campus (UPRM)	Expected Grad: **Dic-2022**
B.S.—Mechanical Engineering	GPA:3.61/4.00

TECHNICAL SKILLS

- Product Design, Product Development Process, BOM Creation, Fusion 360, Siemens NX 11, AutoCAD, On Shape, MS Office Suite, G Suite, Slack, Scrum Method, 3D Printing (Formlabs & Zortax)

RESEARCH EXPERIENCE

National Oceanic and Atmospheric Administration (NOAA) / University of Rhode Island　　　　**May 2020-present**
  NOAA EPP/MSI (Educational Partnership Program/ Minority Serving Institution) Scholar
- Create deep-sea imaging system transmitting live footage over a fiber optic fishing line
- Design several versions of a 3D-printed enclosure to fit the epoxy-potted components of a Raspberry Pi-based deep-sea camera and lighting system that will be adhered to a UAV

Human Centered Design (HCD) Lab, University of Puerto Rico　　　　**August 2019-Dic 2020**
  Design Thinking Undergraduate Research Student
- Optimize "New Venture Design Experience" experimental program to increase student success and entrepreneurship

SURF Program Purdue University, West Lafayette　　　　**June 2020-August 2020**
Pathways Scholar Undergraduate Researcher
- Create Machine tool Cost Model for Milling Machines identifying key components that drive the price to observe how design changes will affect the overall cost of the Machine Tool

Hardware Product Sprint (HPS) Program, Google Inc.　　　　**May 2019-August 2019**
  Mechanical Engineering Selected Student
- Design unique plastic enclosure in OnShape platform to fit the internal components of Google's AIY voice kit
- Invited to "EVT week" at Google HQ to assemble, build, complete fit check and present final 3D-printed product & design review to Google hardware engineers and HPS community

National Oceanic and Atmospheric Administration (NOAA)　　　　**June 2019-August 2019**
  NOAA-EPP CESSRST Scholar/Intern
- EPP/CESSRST-Educational Partnership Program/Center for Earth System Science and Remote Sensing Technology
- Validated the accuracy of the Velodyne VLP-16 LiDAR sensor and designed a 3D printed mount allowing the sensor to be attached to a UAV in order to collect data and explore the aerial capabilities of said sensor

ACTIVITIES/LEADERSHIP

Design Thinking & Consumer Behavior Course, Teacher's Assistant　　　　**January 2021-*present***
- Assist in activities, assignments, host events, and mentor students in interactive, experimental, hands-on course

Sofie's Art Studio, Illustration/Art eCommerce　　　　**August 2020-present**
  Founder, CEO, and Illustrator
- Create a stationery and illustration art business. Function as business manager; head of planning, social media, customer service, shipping, research and development of personalized art items, averaging revenue of $1200 per month

Society of Automotive Engineers (SAE) UPRM　　　　**September 2019-*present***
  Graphic Design Director
- Working on project ranging from video editing, event promotions, print & shirt design, and anything creative

New Venture Design Experience (Design Thinking & Product Design Course), UPRM　　　　**August 2019-June 2020**
  Product Leader
- Lead 6-person group in multidisciplinary program that blends engineering design, innovation and entrepreneurship

PUBLICATIONS

Published Paper by ASME, HCD Lab, University of Puerto Rico	J. Lugo, A. Munoz, M. Ríos (March 2020)
Technical Paper, Purdue University, West Lafayette	A. Munoz, M. Triebe, J. Sutherland (August 2020)

PRESENTATIONS(POSTER)

SURF Virtual Symposium, Purdue University, West Lafayette	August 2020
NOAA EPP/MSI Virtual Summer Symposium/NOAA OER Summer Symposium	July 2020

HONORS/AWARDS

ExxonMobil Fellowship Scholar	July 2020-August 2020
"Juntos" Hispanic Student Leadership Virtual Summit, Google	July 2020-August 2020
NOAA EPP/MSI Virtual Summer Symposium, Second Place Presentation Winner	July 2020

Edmarie Sánchez Gerena

edmarie.sanchez1@upr.edu ▪ 787-399-5809
Calle D Bzn 049 Santa Rosa, Hatillo, Puerto Rico 00659

Objective

Seeking an internship where I can expand my mechanical skills, as a leader, coworker and professional.

Education

University of Puerto Rico, Mayagüez Campus   GPA: 3.41/4.00
    B.S. Mechanical Engineering   Graduation Date: May 2022
    Minor: Project Management
    Lean Six Sigma Yellow Belt Certification, GD&T Course

Work Experience

Raytheon Technologies: Raytheon Missiles and Defense ▪Tucson, AZ   June 2020-August 2020
Mechanical Engineer - Intern
- Captured full configuration of a new product being develop through the Indentured Drawing List while using PTC Creo/Windchill.
- Supported the mechanical integration of the hardware and strain gauge calibration.
- Developed buoyancy spreadsheet to assess debris management post-test event.
- Collected data on loads of Lock Ejector Bolts structure.

Pratt & Whitney (PW): Global Services Engineering (GSE) Co-OP ▪ Aguadilla, PR   February 2020-May 2020
Structural & Design Co-OP Student
- GSE Structural Analysis Team Division
  - Documented the engine components for a PW engine for future interns and the process for the structural analyst role.
- GSE Design Team Division
  - Executed and troubleshooted engine repairs for the aftermarket business while working with blueprints and engine manuals.

Skills

- Technical: Siemens NX 12, Data Analysis, SketchUp, AutoCAD, Creo Parametric, ANSYS and Python
- Languages: Spanish (Native), English (Fluent)
- Microsoft: Word, Excel, PowerPoint, and Visio

Project Experience

SAE Aero Design Team UPRM Collegiate Chapter
Project Management Department Leader   April 2019- June 2020
- Managed the logistics for a team of 48 members. Implemented schedules to keep the team aligned and on-track to achieve common goals.
- Led 11-member team, while participating in outreach activities to promote the STEM field and establishing a safe environment to successfully compete at the SAE Aero Design.
- Raised over $55,000, while working with sponsors by organizing numerous fundraisers/activities to cover team's trip and manufacture expenses.
- Competed virtually against 85 Universities, achieving 1st Place Overall in the Micro and Advanced Class, and 2nd Place Overall in the Regular Class.

RUM-Air Regular Class Team Member   October 2018- April 2019
- Worked in the Fuselage Division on fuselage manufacturing gaining experience with use of power tools, CNC, milling machine and band saws. Developed designs using the Siemens NX 12 program.

Project Management and Business Department Member
- Head of Team Logistics and Competition. Assisted with the team's competition logistics and fundraising activities.

Associations

Society of Women Engineering (SWE): UPRM Chapter   October 2018- Present
- Participated on the Charity Committee on activities such as coastal cleanups.

Guidance Student: Subdivision Mechanical and Industrial Engineering   May 2018 – Present
- Lead, presented, and organized workshops for over 200 freshman students.

Honors and Recognitions

- Program for Engineering Access, Retention, and LIATS Success Scholarship by the NSF   October 2018-Present
- Mechanical Engineering Department Honor Roll   2017-2019

Elderson Mercado Rivera

Email: elderson.mercado1@upr.edu | Mobile: (787) 447-8714 | E-portfolio: https://eldersonmercado1.wixsite.com/resumeelderson1

OBJECTIVE

Acquire an internship or any professional experience in where I can employ my mechanical engineering knowledge and skills.

EDUCATION

University of Puerto Rico – Mayagüez, Puerto Rico   Expected Graduation Date: **June 2023**
Bachelor of Science in Mechanical Engineering   General GPA: **4.00/4.00**   Major GPA: **4.00/4.00**

PROFESSIONAL & RESEARCH EXPERIENCE

Stanford University REU (SURF 2021) *– Assistant Researcher of the Zheng Research Group*   **June '21 – Aug '21**
- Currently, as a participant of the 2021 Summer Undergraduate Research Fellowship (SURF) at Stanford School of Engineering, I have been working on a project based on machine learning and materials science mentored by Dr. Xiaolin Zheng and her research group.

Low Melting Point Metallic Suspension Nano-composite PCM as a Thermal Management Solution for More Electric Systems (sponsored by NASA Marshall Space Flight Center) *– Assistant Researcher*   **Aug '20 – Present**
- Mentored by Dr. Pedro Quintero, I **created** a matrix of nano-fillers and composites used in the development of a thermal management model.

Penn State University REU *– Assistant Researcher at the Materials Research Institute*   **June '20 – Aug '20**
- As a participant of the 2020 Scalable Nanomanufacturing of Complex Materials REU at Penn State University, I **conducted** a virtual research with Dr. Saptarshi Das in where I **discovered** alternative 2D materials that could reinstate the complexity scaling of MOSFETs.

Diffusion Soldering and Phase Change Materials for Advanced Packaging of Power Switching Technologies (sponsored by the Army Research Office) *– Volunteer Researcher*   **Aug '19 – 'May 20**
- **Analyzed** and **explored**, under the mentorship of Dr. Pedro Quintero, efficient phase change materials (PCM) capable of cooling electronic devices properly through thermal analyses and conductivity parameters.

Amgen Inc. *and* ***Johnson & Johnson - Janssen Ortho LLC*** *– Student Visitor*   **July '16**
- **Inspected** different areas of automation of the company and **evaluated** the optimization in the manufacture and dispatch of products.

EXTRACURRICULAR ACTIVITIES

RUM Air Aero Design Team *– Team Member*   **May '19 – June '20**
- **Worked** actively in the project management and business department. I also **designed** and **manufactured** a CDA (Colonist Delivery Aircraft) for the team's Advanced Class Airplane ('El Padron'), which competed at the 2020 SAE Aero Design West Competition.

2019 NASA RASC-AL UPRM Team *– Team Member and Researcher*   **Sep '18 – June '19**
- **Collaborated** actively in the design process of a gateway-based lunar vehicle project selected as first place at the 2019 NASA RASC-AL Contest. Specifically, I worked in the **structure** and **design** of the landing legs and the robotic arm of the lunar lander in the project named Lunar Exploration and Access to Polar Regions (LEAPR). The final paper for this project can be found by accessing this URL link: Lunar Exploration and Access to Polar Regions (LEAPR) | AIAA Propulsion and Energy Forum

National Society of Leadership and Success (NSLS) *– Member*   **September '20 – Present**
National Society of Collegiate Scholars (NSCS) *– Member*   **July '19 – Present**
American Society for Engineering Education, ASEE UPRM - *Member*   **Aug '18 – Present**
- **Offered** mentoring to high schoolers for the College Board PAA test.
- **Volunteered** as a Mechanical Engineering assistant at the third and fourth edition of *Engineering Fun Day*, an activity created by the ASEE-UPRM Chapter in where middle school and high school students from unrepresented communities can interact and learn more about the different engineering disciplines through conferences and fun group projects.

Come Colegial Program *– Volunteer*   **Aug '18 – Present**
- **Participated** dynamically in the recollection and distribution of free food for undergraduates in financial need at campus.

Society of Hispanic Professional Engineers, SHPE UPRM - *Member*   **Aug '18 – May '21**
- **Participated** as a volunteer at the 2019 Puerto Rico Regional Science Bowl.

American Society of Mechanical Engineers, ASME UPRM *- Member*   **Aug '18 – May '19**
Happy Backpack Program of the Food Bank of Puerto Rico *– Volunteer*   **Aug '17 – May '18**
- **Teamed up** with the Food Bank of Puerto Rico to prepare and provide backpacks full of food and necessities for low-income children.

Drawing the Difference Initiative *- Founder and teacher*   **June '16**
- **Provided** non-profit art classes for Down Syndrome and disabled adults as a physical and intellectual therapy that could help them ameliorate their motor skills, creativity, and self-expression.

AWARDS / HONORS

- Recipient of The Boeing Company Scholarship (Boeing Excellence Award) (2021)
- First Place in the Advanced Class category at the SAE Aero Design West Competition (2020)
- Recipient of the Lockheed Martin Scholarship (2019)
- First Place (Overall) at the NASA RASC-AL Contest (2019)
- Participant of the Engineering Program for Engineering Access, Retention, and LIATS Success (E-PEARLS) sponsored by the National Science Foundation (NSF) and recipient of the E-PEARLS Scholarship (2018-2023)
- Dean's List and Honor Roll of the Mechanical Engineering Program (2018-Present)
- Recipient of the National Altrusa International Scholarship (2018)
- Banco Popular's Rafael Carrión, Jr. Academic Excellence Award (2018)

SKILLS

- Fluent in English and Spanish, Lean Six Sigma Yellow Belt
- Microsoft (Excel, Word, Power Point), AutoCAD (Basic), MATLAB (Basic), Python (Proficient), Siemens NX 12 (Proficient),
- Leadership, teamwork, ability to multitask, excellent communication and interpersonal skills. **Willing to relocate if needed.**

GADIEL E. RODRÍGUEZ DÍAZ

E-mail: gadiel.rodriguez@upr.edu | Phone: (787) 340-9466
LinkedIn: https:// www.linkedin.com/in/gadiel-diaz-616828138/

OBJECTIVE

Improve and develop my professional and personal skills while acquiring experience and contributing to real-world problems through a full-time position.

EDUCATION

University of Puerto Rico-Mayagüez Campus (UPRM)	Expected Graduation Date: DEC 2021
B.S. Mechanical Engineering	Cumulative GPA: 3.07, Major GPA: 3.61

Relevant Courses

| Thermodynamics 1 & 2 | Analysis of Algorithms | Advanced Design | Fundamentals of Circuits & Electronics | Heat Transfer |
Mechanics and Sciences of Materials | Fluid Mechanics | System Dynamics | Mechanism Design | Mechatronics |
| Design of Mach Elements 1 & 2 |

INTERNSHIPS

Intellicon | Caguas P.R. | Sales Promotor   **June 2016 – Present**
- Grow and maximize sales through promotion at booths in public spaces, such as commercial centers.
- Improved my soft skills through a client interaction basis.

Fuera LLC | Mayaguez P.R. | Website manager   **June 2018 – August 2018**
- Created a structured data mapping about college community exercising areas through images.
- Diversified my knowledge by designing managing the company's website utilizing WordPress software.

Engineering and Maintenance Engineer Intern | Lilly del Caribe | Carolina P.R   **January 2020 – May 2020**
- Developed preventive maintenance plan for cogeneration project inside facilities, helped prolong equipment lifetime.
- Designed maintenance strategy with spare parts inventory for an effective preventive maintenance, reduced downtime.

PROJECTS EXPERIENCES

A.S.M.E Student Design Competition – UPRM team   **August 2017 – May 2019**
- Developed as Leader inside the Design Team and Marketing Department.
- Designed the structure of the team's robot that competed in the 2018 and 2019 ASME E-FEST.

Rumarino Team   **August 2016 – December 2016**
- Tester and mechanic of an autonomous underwater vehicle (AUV) while designing the designated competition area.
- Evolved my team working skills while interacting with multiple disciplines students.

LEADERSHIP AND EXTRACURRICULAR

American Society of Mechanical Engineers (A.S.M.E)   **August 2017 – Present**
- Learned how to strengthen my weaknesses by participating in the Student Design Competition UPRM team.
- Organized fundraisers, crowdfunding, and collection of food and essentials for children after Hurricane Maria.

Society of Hispanic Professional Engineers (S.H.P.E)   **August 2016 – Present**
- Enhanced my professional network while helping recruiters during their visit on campus.

"Alianza para un Puerto Rico sin drogas"   **August 2015 – May 2016**
- Served as a reporter creating awareness about the importance of health and avoiding drugs.
- Self-motivated about the impact of drugs in people life and how to help people become better fighting group pressure.

Sports   **August 2010 – December 2016**
- Track and field athlete, sprinter 100m dash to 400m dash.
- Developed intensive time management abilities while forging strong discipline.

AWARDS

- **ePearls-** Program for Engineering Access, Retention and LIATS Success   **August 2018 – Present**
- **CIAPR-** Mechanical Engineering Scholarship: Esteban Terrats   **August 2016 – May 2021**
- **ASME E-Fest-** 15th Place at East Fest 2018 and 24th Place at North Fest 2019   **April 2018 – April 2019**
- **AGC-** Mechanical Engineering Scholarship: Jose Domingo   **August 2016 – August 2018**

SKILLS

- **Computer:** NX Siemens, SolidWorks, Autodesk, Microsoft Office, WordPress, Python, MATLAB
- **Leadership:** Teamwork experience. Excellent as team member and leader at motivating and providing solutions.
- **Initiative / Achiever:** Creative in developing, persistent until tasks are achieved.
- **Communication:** Experienced at presentations and excellent team interaction abilities.
- **Languages:** Spanish (native) and English (fluent)

Jean C. Toro Correa

jean.toro1@upr.edu ● 787-307-0379 ● www.linkedin.com/in/jeantorcorrea

Objective

Disciplined student, interested in acquire more knowledge in the **Mechanical Engineering** field through an **internship** or **coop** opportunities.

Education

University of Puerto Rico at Mayagüez (UPRM)   Expected Graduation Date: **May 2023**
Bachelor's Degree in **Mechanical Engineering**   General GPA: **3.91/4.00**   Major GPA: **4.00/4.00**

Relevant Courses

- Fluid dynamics
- Thermodynamics I & II
- Materials science
- Materials mechanics
- Dynamics
- Algorithms (Python)

Professional Experience

UPRM Moonbuggy Engineering Team

Suspension Design and Manufacturer Department Leader   **August 2020 - Present**
- Responsible of the design, material selection, analyses, manufacturing, assembling, and the overall performance of the suspension system in all-terrain rover.
- Reducing weight has been the main objective in the team, as a result, the upper A-arms of rover 1 were manufactured with **Aluminum 6061**.

Wheels Design and Manufacturer Department Member   **August 2019 - January 2020**
- Designed, analyzed, and manufactured a new wheel made of **carbon fiber** and **fiberglass**, as result the weight of the wheels were reduced by **33%**.
- Used SolidWorks to designed tools for retrieving solid and liquid materials and manufactured them with a **3D printer**.

Pratt & Whitney P.R. Design Engineering Internship   **May 2021 - July 2021**
- Responsible of analyzing and reading drawings for **9** different airplane parts.
- Assigned the quality assurance inspections for **9** different airplane parts.

NASA L'SPACE Academy

Design Team Leader   **January 2019 - May 2019**
- In charge of designing and the material selection of the heatshield and back shell of the rover using Solid Edge.
- Developed a NASA mission control proposal for water retrieve from mars.
- As result the design and results were presented to NASA judges.

Programs

The National Society of Leadership Scholars, Mayagüez Chapter (NSLS)   **August 2019 - Present**
- Participate in talks and activities for my professional development.

Engineering Program for Engineering Access, Retention, and LIATS Success   **August 2018 - Present**
- Participate of instructive talks on the professional development on the engineering field.
- Received mentorship and guidance of a mechanical engineering professor.

Society of Hispanic Professional Engineers, Mayagüez Chapter   **August 2018 - August 2019**
- Aided companies in recruiting activities during Career Fair season, as member of the Champion's team.

Skills

- Highly Proficient in Word, Power Point and Excel
- Intermediate skills in SolidWorks
- Intermediate skills Siemens NX 12
- Bilingual (English and Spanish)

Honor Awards

- Honor student for three consecutive years
- Special prize in psychology and placed among the semi-finalists, Puerto Rico Math Fair 2017 & 2018
- Highschool Graduation 2018 (English and History cup in high school)

Jonathan I. German Fernández

Email: jonathan.german@upr.edu | **Phone:** 1-(787) 506-5809

Education:

University of Puerto Rico at Mayaguez (UPRM)   12/2022
- Bachelor of Science in Mechanical Engineering   **GPA 3.50**

Experience:

Johnson & Johnson | Global Franchise Integration Coop | Piscataway, NJ   07/2019-01/2020
- Assisted with over 65% of upcoming New Product Launches of Medical Devices through consistent tracking, networking, and data validation.
- Successfully practiced Supply Chain readiness through a series of assigned tasks and projects.
- Provided customer service base-business by managing Sales Deals Promo requests within SAP GUI system and saving up to $10,000.

Empower 3D Student Association | Director | UPRM   10/2018-Present
- Co-founder of "Maker: Zero to Hero" 12-week specialized program.
- Project management: Complete redesign of UPRM's Makerspace and Empower 3D boosting efficiency and successful member acceptance rate by more than 50%.
- Increased positive feedback from previous and new staff members with respect to the redesign.

Human Powered Vehicle Challenge | Brakes & Wheels Engineer | UPRM   08/2018-05/2019
- Created and improved current human powered vehicle braking system by implementing a 3:1 brake ratio reducing bulk by 50% from 2018 design.
- Supported investigation about human powered vehicles and their benefits to society.
- Research and Design in the Department of Brakes and Wheels.

Research:

NASA/UPRM | Thermal Management with Phase Change Materials in Electronic Packaging   08/2020-Present
- Research on D-Sorbitol and silver Nanoparticle PCM composite for efficient electronic thermal management.
- Investigating material properties of nano PCM composite materials for further development.
- NASA sponsored collaborative investigation.

UPRM ME Class | Creative Design (II): Universal Wheelchair Adapter   01/2018-05/2018
- Product development and design consisting of various parts that facilitate wheelchair transportation and commodity by over 25% of the standard market products.
- Construct a product that will allow for vertical displacement to be transferred into horizontal movement thus preventing a series of issues with the wheelchair itself.

Extracurricular Activities:

- 3D Modeling and Printing   08/2017-Present
- Member of American Society of Mechanical Engineering (ASME)   08/2017-Present
- Member of Engineering PEARLS   10/2018-Present
- Member of Johnson & Johnson's HOLA & ICA   07/2019-01/2020
- Hurricane Maria Community Support Group (Group leader/organizer)   09/2017-12/2017

Awards & Recognitions:

- National Puerto Rican Day Parade Scholarship   05/2019
- Harris Shark Tank Pitch Competition Winner   04/2019
- Mechanical Engineer Honor Student   04/2019

Skills & Certifications:

- **3D CAD/Printing:** Ultimaker Cura, Simplify 3D, Blender, Prusa Slic3r, Siemens NX, Autodesk Fusion 360
- **Programs:** Workbench ANSYS, Python, Microsoft Office
- **Skills:** Design Thinking, Case Study Analysis, Fluent Bilingual
- **Certifications:** Lean Yellow Belt Certified

KARLA M.
DEIDA-VILLAFAÑE

Hatillo, PR 00659 🏠
(787) 237-5678 📞
karla.deida@upr.edu ✉
linkedin.com/in/karla-deida 🔗

OBJECTIVE

Seeking an internship that will develop my technical and interpersonal skills to enhance my professional career as a team-oriented engineer

EDUCATION

Bachelor of Science in Mechanical Engineering | University of Puerto Rico at Mayagüez   MAJOR GPA: **3.30**

EXPECTED GRADUATION DATE – MAY 2022

Relevant Coursework

- Thermodynamics
- Fluid Mechanics
- Mechanics of Materials
- Mechanism Design
- Statics and Dynamics
- Manufacturing Processes
- Algorithm and Computer Programming
- Fundamentals of Electrical Engineering
- Material Science and Engineering

TECHNICAL PROJECTS

Project Manager | Micromouse Team   JULY 2020 – PRESENT

- Reorganizing team structure while managing the team's schedule and milestones
- Collaborating on weekly workshops to strengthen member's technical skills and professional development

Vehicle Dynamics Member | Collegiate Design Series Formula SAE   JANUARY 2018 – MAY 2019

- Redesigned CC-3's braking system to ensure **20% reduction** in the vehicle's weight
- Managed team schedule that included design, technical reports, presentations, manufacturing, and the testing of two different prototypes
- Contributed on fundraising of over **$3,000** to cover manufacturing expenses of CC-2
- Dedicated 10+ weekly hours manufacturing different components of the suspension system of CC-2 such as A-Arms, Rockers, Wheel Hubs and Uprights
- Competed in 2019 Formula SAE at Michigan International Speedway, achieving **36th place out of 120 universities**

Personal Urban Mobility Access Project Competition | PACE   JANUARY 2018 – MAY 2018

- Improved ergonomics of final seat design by analyzing customer insight data and evaluating survey information of desired population

Open Capstone 2016| Mini-Capstone   DECEMBER 2016

- Designed, prototyped, and analyzed costs of modern kid-size wheelchair

PROGRAMS

Engineering Program for Engineering Access, Retention, and LIATS Success | ePEARLS   OCTOBER 2018 – PRESENT

- Selected as 1 of nearly a thousand applicants to participate in the engineering program
- Awarded scholarship by the National Science Foundation through program: *"Recruiting, Retaining and Engaging Students from Economically Disadvantaging Groups into a Pathway to Successful Engineering Careers"*

Recruitment, Retention and Distance Engineering Education Program | R2DEEP   AUGUST 2016 – MAY 2017

- Selected to participate in the R2DEEP program, taking pre-engineering disciplines
- Completed college-level credits throughout high school such as: Engineering Graphics and Algorithm & Computer Programming

CERTIFICATIONS

Lean Six Sigma | Yellow Belt   SEPTEMBER 2019

- Completed **24 hours of training** course improving business acumen and analytical skills, and adopting methodologies to achieve cost reduction, increase revenue and improve overall quality

SKILLS

- **Microsoft Office & Excel** - *Advanced Knowledge*
- **Ansys** - *Basic Knowledge*
- CAD: **AutoCAD, SIEMENS NX 11 &12 & Inventor** – *Intermediate Knowledge*
- Programming: **VBA & Python** – *Basic Knowledge*

Leticia M. Díaz-Torres

787-375-4640 | leticia.diaz1@upr.edu | www.linkedin.com/in/leticia-diaz-torres

OBJECTIVE
Currently seeking **internship, co-op, and research** opportunities in the **Mechanical Engineering** field.

EDUCATION

University of Puerto Rico, Mayagüez Campus.   Expected Graduation Date: **May 2023**
Bachelor of Science Degree in **Mechanical Engineering.**   General GPA: **3.69/4.00**

PROFESSIONAL EXPERIENCE

Colegio Racing Engineering Formula SAE-UPRM   **August 2020-Present**
Member of the Body and Chassis Division
- Directed at designing and manufacturing the fastest, lightest and most cost-effective race car.
- Chosen **among 90 students** from all engineering and science majors to work on the Body and Chassis division.
- Research different materials in order to reduce the weight of the frame of the CC-3 model car.

Fuel Cell Research Investigation, University of Puerto Rico-Mayaguez   **December 2019 - Present**
Undergraduate Researcher supervised by Dr. Eduardo Ortiz
- Simulation and mathematical modeling of the development and technology of fuel cells with its integration to the undergraduate electrical and chemical engineering education.
- Consolidated data and produced power curves using Python programming to validate them with existing models.

Novel System INC.   **April 2017 - July 2019**
Assistant to Project Manager
- Assisted with the installation of solar photovoltaic panel systems by providing dimensional and structural analyses of roofs.
- Compiled and distributed statistical information regarding past and future projects
- Prepared annual financial reports regarding the expenses and revenue of each project and solar photovoltaic system installation.

LEADERSHIP EXPERIENCE

American Society for Mechanical Engineers (ASME) - UPRM Chapter   **August 2020 - Present**
Human Resources Committee Chair
- Design and examine surveys, questionnaires, and forms with the purpose of learning about our member's demography and concerns; and evaluating the success and impact of our professional development events.
- Create, monitor, and record all registration and feedback forms from all the chapter's events.
- Provide a mathematical analysis of the member's academic and professional progress.

Program for Engineering Access, Retention, and LIATS Success– (PEARLS)   **January 2020 - Present**
Scholar
- Directed at helping bachelor's and master's level students in all engineering disciplines to successfully complete their study programs and transition into professional life, sponsored by the National Science Foundation.
- Chosen **among 70 students** from all engineering disciplines to go through individualized career mentoring, soft-skills training, research opportunities, internship/COOP experiences, and peer-mentor activities.

American Institute of Chemical Engineers (AICHE) – UPRM Chapter   **August 2018 - May 2020**
Active member
- Coordinated activities and scientific simulations for AICHE's CHEME outreach event for high school students.
- Chosen to represent AICHE's student body at UPRM's Company Night where recruiters met with student chapters before every campus' Job Fair.
- Assisted the fundraising committee chair to raise money to cover chapter's expenses and initiatives.

SKILLS

- Fluent in **English and Spanish**
- **SACHE** Certificate Program: An Introduction to **Managing Process Safety Hazards**

- Advanced knowledge in **Microsoft Platforms**
- Beginner knowledge in **Python programming**
- Beginner knowledge in **AutoCAD**

Luis A. Mañán Mejías

luis.manan@upr.edu | www.linkedin.com/in/LuisAManan | (787) 944-4847

EDUCATION

University of Puerto Rico, Mayagüez Campus   **General GPA: 3.85/4.00**
Bachelor of Science in Mechanical Engineering   **Major GPA: 4.00/4.00**
Expected Graduation: **May 2023**

PROFESSIONAL EXPERIENCE

Abbott Laboratories
Operation Intern, Global Engineering Services Division   **June 2020 – August 2020**
- Optimized asset management process for facilities management team in Chicago, Illinois.
- Applied Lean Six Sigma tools in designing process map, digital tools, and stakeholder team.
- Designed solution to reduce backlogging of asset information and eliminate back end costs for facilities and maintenance.
- Led project team with facilities, high school STEM intern, and key stakeholders outside of facilities management group.
- Achieved **1st place** in business pitch competition by analyzing financial projections for sales and revenue.

Student Design Competition
Mechanical Engineer   **August 2019 – May 2020**
- Designed and developed a robot capable of building a paper tower under time, weight, and height requirements.
- Applied skills in technical drawing (Siemens NX), design process, power tools, robotics, and mechatronics.

In-situ sensor for real time detection of coliform bacteria in public water   **March 2019 – March 2020**
Undergraduate Researcher under supervision of Dr. Pedro J. Resto
- Optimizing biosensor for detection of colony-forming bacteria in bodies of water in a much shorter period.
- Conducted on-field testing to identify different indicators of bacteria growth in public waters.
- Enhanced software to reduce testing time from 24 hours to 14 hours, a **41%** reduction.

LEADERSHIP EXPERIENCE

American Society of Mechanical Engineers
Chair, UPRM Student Section   **June 2020 – Present**
- Developing strategies to digitalize professional development and add value to our membership.
- Succeeded in recruiting **50% new members** of total membership and increased female participation in leadership by **12%**.
- Increased attendance to events by **105%** and achieved an overall satisfaction rate of **96%**.

Puerto Rico Representative, Student Regional Team Caribbean and Latin America   **January 2020 - Present**
- Continuing effort of forming new Student Sections in Puerto Rico and making sure they stay active.
- Communicating local activities that promote ASME's mission.

Coordinator, Future Leadership Mentoring Program   **January 2020 – May 2020**
- Keeping tabs on our mentors and mentees and planning professional and technical growth activities for our members.
- Accomplished an **80% retention rate** of mentees in leadership positions and a **50/50 gender parity** among mentees.

RealTimePC
Mentor   **June 2019 – June 2020**
- Volunteered in mentorship and outreach initiative targeting future industrial engineering students.
- Exposed myself to robotics laboratory, automation, and other relevant industry knowledge.

Program for Engineering Access, Retention, and LIATS Success (ePEARLS)
Scholar   **January 2019 – Present**
- Identified as high-potential student, receiving mentoring from staff and peers, participating in professional workshops.
- Chosen among 70 students from all engineering disciplines to go through individualized career mentoring, soft-skills training, research opportunities, internship/COOP experiences, and peer-mentor activities.

Chorium, Inc.
Member   **August 2018 – Present**
- Actively participating in scheduled weekly rehearsals, workshops, and music festivals and concerts.

SKILLS

- Lean Six Sigma Yellow Belt Certification (Abbott Laboratories, Abbott Park, Ill.)
- Siemens NX and AutoCAD (beginner)
- MATLAB and C Programming Language (intermediate)
- Fluent in Spanish and English

MICHAEL A. HERNÁNDEZ LAMBERTY

Phone: (787) 429-5214 E-Mail: michael.hernandez15@upr.edu https://www.linkedin.com/in/michael-a-hernandez-lamberty/

Objective

To obtain **internship** or **COOP** opportunity in the area of mechanical or biomechanical engineering

Education

University of Puerto Rico, Mayagüez Campus (**UPRM**)
B.S. Mechanical Engineering   Expected Graduation Date: Dec 2021
GPA 3.68/4.00

Research Experience

HP Inc., COOP student in Analytical Development Solution R&D Team, Aguadilla, PR   **Fall 2019 - Spring 2019**
- Developed rheological material characterization methods for fluids in commercial printing inks
- Used statistical analysis to understand role of fluid formulation in rheological parameters for continuous improvement of ink efficiency

Michigan State University Summer Research Opportunities Program, East Lansing, MI   **Summer 2019**
- Designed breast biomodel so plastic surgeons can practice breast reduction surgery
- Compared mechanical properties of various materials that could accurately represent the fat, skin and glandular tissue of the breast

Effect of Alumina Nanoparticles on the Portevin Le-Chatelier Phenomenon in a 5182 Aluminum   **Spring 2019**
Alloy, UPRM, Mayagüez, PR
- Analyzed the mechanical properties and consequences of the Portevin Le-Chatelier effect on 5182 Aluminum alloy after being treated with Al_2O_3 nanoparticles.

Pennsylvania State University Summer Research Opportunities Program, PA   **Summer 2018**
- Assessed the effects of stem cells in bone suffering from rheumatoid arthritis
- Studied the bone morphology and bone biomechanics of stem cell treatment mice tibia to determine if the treatment was providing fully functioning bones

Pennsylvania State University Summer Research Opportunities Program, PA   **Summer 2017**
- Analyzed the strain distribution on bone-implant interface of glenoid implant and humerus
- Determined the strain concentration and recommended geometric changes to implant

Publication

UE: TMS 2018 Conference Proceedings, Arizona, PX   **Spring 2018**
- Zhou, Y., **Hernandez Lamberty, M. A.**, Lewis, G. S., Armstrong, A. D., & Du, J. (2018). 3D full-field mechanical measurement of a shoulder bone under implant loading. In TMS 2018 147th Annual Meeting and Exhibition Supplemental Proceedings (pp. 287-293). (Minerals, Metals and Materials Series; Vol. Part F12).

Extracurricular Activities

Engineering in Medicine and Biology Society (EMBS) Directive   **Fall 2016 - Present**
- President of EMBS from January 2018 to December 2019
- Research director of **21** members of pilot EMBS Prosthetic Arm project
- Developed and provided students and community with presentations and technical workshops in the area of biomedical and biomechanical engineering

UPRM E-Pearls Program Participant   **Fall 2018-Present**
- NSF funded professional development program that targets select engineering students and mentor them with the objective of helping the student successfully complete their study program and transition into professional life

Engineering Workshop, Women in Engineering - UPRM Chapter   **Spring 2017, 2019**
- Described to high school students the responsibilities of a mechanical engineer and provide them with a technical workshop

Skills

- Engineering Design: NX (intermediate), Inventor (basic), Solidworks (basic)
- 3D Data analysis: Avizo (intermediate), DaVis (basic)
- Statistical Analysis: IBM SPSS (basic), JMP 9.0 (intermediate)
- Programming: MATLAB (intermediate)
- Fluent in Spanish and English writing and speaking

XIOMARA VARELA MORALES

Date of birth: 03/29/2000
Address: PO Box 349, Lares 00669, Puerto Rico
Phone number: 787-675-7275
Email address: xiomara.varela1@upr.edu

Education

08/2018 – 05/2022   GPA: 3.55
Mechanical Engineering | Minor in Project Management
University of Puerto Rico at Mayagüez

Experience

01/2020 – PRESENT
Student mentor
Engineering Access, Retention, and LIATS Success
-Organize peer-mentor activities to work on professional skills
-Give individualized mentoring and integrating students into the learning community

08/2020 – 12/2020
Proposal Writer and Reviewer
NASA Proposal Writing and Evaluation Experience Academy.
-Attend meetings for preparation of proposal writing/reviewing consisting of New Technologies Reports, Quad Charts, Patents and Trademarks
-Investigate the given subject and then redact a proposal that met the requirements established by NASA

08/2018 – PRESENT
Scholar
Engineering Access, Retention, and LIATS Success
-Participate in individualized career mentoring, soft-skills training
-Attend seminars and workshops to fulfill program requirements to enable a smooth transition into professional life

08/2018 – 02/2019
Project Manager
FellowSHPE
-Gather Sponsor Information and create a proposal for sponsorships

Experience

-Develop a website for the Society of Hispanic Professional Engineers (SHPE) sponsor's
-Present final work for student panel

Awards

08/2019
E-PEARLS Scholarship
National Science Foundation
-Approved 80% or more of the credits corresponding to their year of study and a general cumulative grade point average (GPA) of 3.0/ 4.0 or above

08/2018
Rafael Carrión Jr. Award for Academic Excellence
Banco Popular de Puerto Rico
-Recognized for over-average scores in the advanced placement tests (PAA) and the College Board test (CBPRAL).

05/2018
"Te queremos Preparados" Award
Senate of the Commonwealth of Puerto Rico
-One of the Four students from the educational region of Arecibo awarded for the performance in the College Board test

Skills

~ **LANGUAGES**
Spanish
English
French
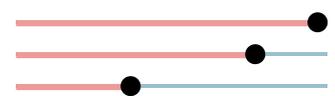
~ **COMPUTER SKILLS**
Microsoft Office
AUTOCAD
Siemens NX
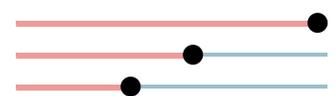
Yasmarie E. Torres Paneto

Mont Blanc Gardens Edif. 8 Apart. 118 Yauco, Puerto Rico 00698 | yasmarie.torres@upr.edu | 787-390-3154

Objective

To obtain an **internship** in which I can acquired knowledge in multiple areas to aid the completion of goals and overall strategy of the company, while developing technical skills and gaining an enriching experience in the engineering field.

Education

University of Puerto Rico – Mayagüez Campus		*Graduation date:* Dec 2022
Bachelor of Science in *Mechanical Engineering*	Major G.P.A. 3.66/4.00	G.P.A. 3.45/4.00
Minor in **Project Management**		

Experience

Abbott Laboratories – *Equipment Engineer Co-op Student*   **Aug 2020 – Jan 2021**
- Lead the implementation of Spare Parts Program improvement for predictive maintenance activities to enhance indirect labor by 5%.
- Lead a data integrity project to satisfy compliance risks by configuring passwords on manufacturing equipment used by operators to ensure only authorized personnel can adjust date and time settings.
- Improved quality, safety and productivity of Abbott technician's area storage implementing 6S Lean principles

Amgen Manufacturing Limited – *Facilities Engineer Co-op Student*   **Aug 2019 – Jul 2020**
- Defined and executed an alarm reduction plan improving a 45% of the failures in the Building Management System.
- Established a system of metrics of the alarms for Engineering Senior Leadership visualization.
- Analyzed vibration data to predict and prevent system failures as part of the reliability program.
- Developed a Smartsheet tool for the manager to track the status and resources of the assigned work orders.
- Planned and coordinated the removal of old and installation of new insulation jackets as a project manager.
- Presented alarm reduction improvement to the Engineering Senior Leadership.

Eli Lilly – *Project Management Coordinator*   **Jun 2019 – Jul 2019**
- Participated in a project of cooling tower and chiller replacement in the utilities building.
- Coordinated the meetings with the stakeholders of the project to receive update.
- Learned the functionality of the manufacturing process.
- Obtained a 10 hours certification of OSHA in construction safety.

Leadership

Project Management Student Association (PMSA) – *Community Executive*   **May 2019 – Present**
- Founded the association to impulse new projects at the university and promote the project management minor.
- Developed a plan to be presented to the Project Management Institute to be the first student association chapter.

National Society of Professional Engineers (NSPE) – *Chief Operations Officer*   **Aug 2018 – May 2019**
- Led a group of 60 members to develop them through workshops and leaderships activities with the help of 8 students that belong to the board of directors.

Extracurricular Activities

Program for Engineering Access, Retention, and LIATS Success (PEARLS) – *Participant*   **Oct 2018 - Present**
- Recruited to receive professional guidance, training in social skills and research opportunities to complete our baccalaureate on time and successfully.

Amgen Biotalent – *Participant*   **Aug 2019 – Aug 2019**
- Participated in a 2 day workshop related to aseptic conducts and industrial production of recombinant proteins.

Honors

- L3Harris ECOS Scholarship   **Apr 2021**
- NLHA Scholarship 2018   **July 2018**
- Sartorius Stedim Biotech Scholarship 2016   **July 2016**

Technical/ Non-Technical Skills

▪ Teamwork Skills	▪ Bilingual Spanish and English (Proficient Level)
▪ Lean Six Sigma Yellow Belt	▪ Willing to travel
▪ Technical Writing & Presentations	▪ Good Communication Skills

▪Software: Microsoft Office, C++, NX, Maximo, MatLab, Smartsheet (Beginner Levels)
References are available upon request

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Software Engineering

Name	Availability	
	Spring	Summer
• **Abdiel Cortes Cortes**	✓	✓
• **Chaliana Rolón Ojeda**	✓	
• **Christian Alapont Hernández**	✓	
• **Orlando Marrero Soto**	✓	✓
• **Steven A. Ramírez**	✓	
• **Valerie Reyes Ortiz**		
• **Veronica Bernier Ortiz**	✓	✓
• **Yeran L. Concepción Concepcion**	✓	✓

ABDIEL CORTÉS

Email: abdiel.cortes@upr.edu | *Phone:* (787) 422-7100 | *Portfolio:* abdielcortes.wixsite.com/portfolio | *GitHub:* AbdielCortes

Objective

Obtain an Internship/COOP/REU that allows me further to enhance my knowledge and skills in Software Engineering field (or its related fields).

Education

University of Puerto Rico – Mayagüez Campus (UPRM)   **Expected Graduation Date: December 2022**
    Bachelor of Science in Software Engineering   **Cumulative GPA: 3.60/4.00**
    Third Year Undergraduate Student
    Relevant Courses: Data Structures, Discrete Math for CS, Circuit Analysis 1, Programming Languages, Computer Architecture 1

Skills

- Java programming (advanced)
- Python programming (intermediate)
- C ++ programming (intermediate)
- C programming (basic)

- Objective C (iOS - intermediate)
- React JS (basic)
- Arduino & Raspberry PI (basic)
- AutoCAD (intermediate)

- Fusion 360 (basic)
- Siemens NX (basic)
- Fully fluent in English and Spanish
(written and oral)

Work Experience & Extracurriculars

ADVERSARIAL TECHNIQUES FOR FACIAL RECOGNITION MODELS   **UPRM – August 2020 – Present**
Undergraduate Researcher (Python)

- Learned about common machine learning models and how to best apply them
- Researched how One Pixel Attacks can disrupt image recognition models

ADVANCED PROGRAMMING LAB   **UPRM – January 2020 – December 2020**
Instructor's Assistant (Java and C++)

- Helped students understand core object-oriented programming problems with Java and C++
- Aided students with understanding their mistakes and guided them to the solution

FACEBOOK UNIVERSITY INTERNSHIP   **Remote – June 2020 – August 2020**
iOS Intern (Objective C)

- Participated in a three-week Objective C iOS mobile development course by Code Path
- Used the Parse iOS SDK to create a social media app that allows artists to share and sell their art

ASME STUDENT DESIGN COMPETITION PROJECT   **UPRM – August 2018 – May 2020**
Computer Department Programmer (C++)

- Worked on programming the robot's servomotors and wireless communication using Arduino (C++)
- Researched for microcontrollers, sensors, and servos that meet the robot's design and needs
- Ranked 16 out of 56 competing universities in ASME's E-Fest North 2019

PUERTO RICO ROBOTICS ASSOCIATION VEX U TEAM   **UPRM – January 2020 – March 2020**
Programmer (C++)

- Programmed robots using Vex Code (C++) for autonomous and driver control
- Awarded the Design Award, Robot Skills Award and qualified for the Vex World Championship 2020

UPRM OFFICE OF TRANSPORTATION   **UPRM – September 2018 – May 2019**
Work and Study Administrative Assistant

- Processed, managed, and organized sensitive documents and data to aid in financial and statistics analysis
- Filed paperwork and important documents related to the use of the university's vehicles

Honors & Awards

Engineering PEARLS Honors Program   **October 2018 - Present**
    - Selected as 1 of ~2000 applicants to be part of the "Program for Engineering Access, Retention, and LIATS Success"
Lockheed Martin Top 100 Scholars   **April 2019**
    - Selected as 1 of 20 first year engineering students to receive a scholarship for my academic and extracurricular performance

Chaliana Rolón Ojeda

chaliana.rolon@upr.edu| **LinkedIn:** chaliana-rolon-ojeda | **GitHub:** anarolon | **Wixsite**: chalianarolon.wixsite.com/chalianarolon

EDUCATION

University of Puerto Rico – Mayagüez Campus   *Expected Graduation Date:* **May 2022**
Bachelor's in **Software Engineering**   G.P.A.: **3.59/4.00**

EXPERIENCE

UPRM RoboBoat Team, University of Puerto Rico at Mayagüez   Mayagüez, P.R.
Programmer   Jan 2020 – Present
▪ Created C# script to format task information into JSON message (Object coordinates, etc.), and script that parses action messages in JSON format from the boat's AI to Unity.
▪ Created scaled competition task objects in Unity for competition simulation.
▪ Created user interface to establish bridge between Robot Operative System and Unity Game Engine.
▪ **Tools:** Unity Real Time Development Platform, C#

General Electric Renewable Energy   Añasco, P.R.
Programmer   Jan 2019 – Aug 2019
▪ Contributed in the development of an inventory reduction desktop application that aims to reduce inventory costs by $500k
▪ Developed an Issue Tracker desktop application to aid Human Resources manage conflicts between employees
▪ Developed Graphical User Interfaces using Java FX
▪ Created and managed databases using MySQL and Microsoft's SQL Server
▪ **Tools:** Eclipse IDE, Java (OOP), JavaFX, SQL, Scene Builder (with FXML, and CSS files), Apache POI API, Java Excel API

Educational Nanotechnology Video Game, University of Puerto Rico at Mayagüez   Mayagüez, P.R.
Programmer   Aug 2017-Dec 2018
▪ Contributed in the development of an educational video game aimed for middle and high school students, to teach them concepts of nanotechnology.
▪ Designed, implemented, and debugged aspects corresponding to the interactive menu and video game levels.
▪ **Tools:** Unity Real Time Development Platform, C#, Visual Studio

Facebook University for Engineers Internship   Menlo Park, CA
Mobile Application Developer   June 2018 – Aug 2018
▪ Participated in a three-week training of iOS mobile development by CodePath.
▪ Worked in the development of an iOS mobile application called *Shelfie* that lets its users trade, sell, or gift, books.
▪ Developed, using the Facebook SDK, the login method, the User model and sharing through Messenger and Facebook.
▪ **Tools:** XCode IDE, Objective C, Facebook SDK

PUBLICATIONS

● Co-author of a peer-reviewed paper, titled *Educational Nanotechnology Video Game to Inspire Middle and High School Students to Pursue STEM Related Professional Careers,* at the IEEE Frontiers in Education 2018 Conference

EXTRACURRICULAR ACTIVITIES

Program for Engineering Access, Retention, and LIATS Success (EPearls)   Oct 2018 – Present
▪ Participating in career mentoring, soft-skills training, internship/COOP/research experiences, and peer-mentor activities.
Computing Alliance of Hispanic-Serving Institutions (CAHSI)   May 2018 – Present
▪ Participated in a series of intensive workshops to develop skills in research and project management, creativity in research, leadership and emotional intelligence, and the recognition of identity and culture, and others.

ACCOMPLISHMENTS

▪ Grace Hopper Celebration 2020 Scholarship Recipient   Spring 2020
▪ Engineering EPearls Scholarship Recipient   Fall 2018 – Present
▪ Honor roll student of the Computer Science and Engineering Department   Spring 2018 – Present

SKILLS

・**Knowledge of:** Unity Game Engine, Eclipse IDE, Visual Studio, XCode IDE, MySQL, Microsoft Word
・**Programming Languages:** Java, C#, Objective-C, Python
・Bilingual: Spanish/English

CHRISTIAN A. ALAPONT HERNÁNDEZ.

Phone: (787)-940-6621 | christian.alapont@upr.edu | christian.alpnt@gmail.com | Linkedin: Christian Alapont

OBJECTIVE

Highly motivated Computer Science and Engineering student seeking for a Software Engineering internship to improve programming skills, critical thinking and professionalism.

EDUCATION

BS University of Puerto Rico Mayagüez Campus, **GPA: 3.73**
Computer Science and Engineering August 2017 – May 2022

EXPERIENCE

Software Development Engineer | Zillow May 2020 – August 2020
- Developed a questionnaire API using Java, along with the database schema with a starting implementation system using tools such as Springboot, Liquibase, MySQL, JUnit and HQL.
- Developed a validation system for real time incoming messages in Java.
- Modified endpoints to show information that would eventually show up in the app. Used tools and frameworks such as GraphQL and React to get the information and present it.

Cybersecurity Research Lead | University of Puerto Rico, Mayagüez Campus August 2019 – Present
- **Leader:**
  - Since January 2020.
  - Identify and plan tasks for members to continue research progress.
  - Promote a challenging, yet friendly environment for members and shadows.
- Familiarizing myself with network terms of Cisco CCNA, Linux, Machine Learning and CompTIA Security+.
- Concentrating in Penetration Testing to participate as a member in competitions.

Rumarino | University of Puerto Rico, Mayagüez Campus May 2019 – May 2020
- Work on debugging, mission logic, controller, vision, documentation and simplifying the level of understanding needed to use submarine.
- Gain insight on Linux terminal use, Python, ROS, multi-disciplinary team, physical devices, modular coding and object oriented programming.
- Went to Robosub 2019 competition in San Diego, California and placed 15th of 53 teams.

ORGANIZATIONS & AWARDS

University Honor Roll 2017-2020
CAHSI 2019 – Present
- Participate in activities to improve technical skills and soft skills.

RUM Animal Rescue September 2019 - Present
- Give temporary home and resources to pets without owners until a new permanent owner is found.

Tapia Conference September 2019
- Received a travel sponsor to participate in the Tapia Conference 2019.

Boeing Scholarship February 2019
- Recognized for academic excellence and one of the 36 students chosen to receive scholarship.

ePearls | Program for Engineering Access, Retention, and LIATS Success October 2018 – Present
- Receive individualized mentorship, scholarship and workshops to help establish a career path.

SKILLS

- Python(intermediate), Java(intermediate), Javascript(intermediate)
- Beginner in ROS framework
- Fast and independent learner.

- Languages: Spanish(native), English(native)
- Linux

Orlando F. Marrero-Soto

787-413-1722 | orlandosoto2000@gmail.com
orlando.marrero6@upr.edu | Orlando Marrero Soto | OrlandoFabian

Education

Bachelor of Science in Software Engineering	Expected Graduation Date: **December 2023**
University of Puerto Rico: Mayaguez Campus	**GPA**: 3.61 **Major GPA**: 3.65

Google Tech Exchange Scholar   **January 2021- May 2021**
- Chosen as one of 115 students to participate in Google's "Tech Exchange," a program designed to give access to cutting edge industry courses, increasing preparedness for Software Engineering, Product management & UX internships/careers.

Relevant Courses: Intro to Programming, Fundamentals of Computing, Advanced Programming, Data Structures, Intro to Software Engineering, Applied Data Structures & Algorithms (**Google**), Human Computer Interaction/UX (**Google**), Software Engineering Requirements (In Progress).

Programming languages: Java (Beginner), Python (Beginner), SQL Server (Beginner), HTML (Beginner), CSS (Beginner), JavaScript (Beginner), VBA (Beginner).

Skills: UX Design and UX Development, Web Application development with **React.js,** Leadership, Self-disciplined, Ability to Work Under Pressure, Teamwork and Time Management.

Experience

L3Harris Summer Internship
Software Engineer Intern   July 2020 – August 2020
- Automated a process to identify potential errors of over **200** employees' in their time-card entries using **VBA** in **Excel**.
- Developed a **macro** in **Excel** using **VBA** to create statistics for over **40** managers about their employees' timecard entries.

Medical Card System (MCS) CO-OP
Programmer Analyst   January 2020 – June 2020
- Developed a Web Application using **ASP.NET** for over **1500** employees to manage their accounts for other applications.
- Automated **3** internal processes, that were run manually, using **SQL Server** and **SSIS** in **Visual Studio.**

Projects

Tech.Add()
Co-Founder / Teacher   January 2021 – Present
- Teaching **python** and **problem-solving** skills to high school students from underrepresented minorities with the goal of increasing the number of students and retain those that apply to a Computer Science mayor within these communities.

Munera, Google Software Product Spring
Participant   January 2021 – May 2021
- Collaborated with a team of peers to design and implement a web application using Java, JavaScript, HTML, and CSS over the course of 10 weeks, leveraging various Google Cloud Platform APIs, including App Engine and Datastore.
- Built a web application in which users can upload donations to the web server and other users can pick up those donations.

Educational Nanotechnology Video Game Research
Undergraduate Researcher / Leader / Prof. Nayda G. Santiago   August 2018 – December 2020
- Developed an **Augmented Reality** video game using **Unity Game Engine** and **C#** to motivate middle school students to pursue a career in a STEAM related field.
- Impacted over **50** students from the age of **9** to **15**.

Programs

Engineering Pearls   August 2018 – Present
- Improving my technical and soft skills with the goal of completing my studies and to transition into my professional life.

Accenture Student Leadership Program – Pride Track   January 2021 – May 2021
- Developing my leadership skills by taking multiple workshops giving by Accenture's development team.

Leadership

Computer Alliance for Hispanics-Serving Institution (CAHSI) – President   January 2021 – Present
- Coordinating meetings, activities, workshops and programs for all the active members.

Allyship (CAHSI) – Mentor   January 2021 – Present
- Mentoring a first-year software engineer student to achieve their professional career goals by giving them the necessary tools.

Engineering Pearls – Mentor   January 2021 – Present
- Mentoring 4 students of the E-Pearls program for them to continue their professional development in their respective areas.

Team Made - Guiding Student   May 2019 – Present
- Providing support for over **300** first-year students about the **University of Puerto Rico Mayagüez** campus and the college life.

Association for Computing Machinery – Computer Science Engineer (ACM-CSE) - Spokesperson   August 2019 – December 2019
- Negotiated sponsorship from companies by giving them promotion within the campus and the members of the ACM.
- Tutored over **20** members of the ACM in **Java** and **Python**.

Awards and Accomplishments

- Received **1st place** in the Hack-A-Virus hackathon from Codegym PR in April 2020.
- Received **1st place** in the Intercollegiate Programming Competition - **National Division** in 2019.
- Received **1st place** in the Intercollegiate Programming Competition - **Local Division** in 2019.
- Received a Scholarship from **Evertec** in August 2018 for being a leader in the community.

STEVEN A. RAMIREZ ROSA

steven.ramirez3@upr.edu | (787) 459-4845 | linkedin.com/in/steven6798 | stevenramirez3.wixsite.com/portfolio

EDUCATION

University of Puerto Rico, Mayaguez Campus (UPRM), Mayaguez, Puerto Rico
Bachelor of Science in Software Engineering

Expected: May 2022
GPA 3.33/4.00

PROFESSIONAL EXPERIENCE

Department of Computer Science and Engineering, Lehigh University   **Remote**
Undergraduate Researcher   *June 2021-Present*
- investigating compiler techniques for advanced synchronization on multi-core CPUs

Intelligent and Scalable Systems REU, Lehigh University   **Remote**
Undergraduate Researcher   *May 2020-August 2020*
- Designed a new synchronization algorithm leveraging Bloom filters and Intel Transactional Synchronization Extensions
- Developed static transformations in LLVM to reduce instrumentation overhead
- Achieved >7% improvement on common transactional memory workloads

Student Design Competition (SDC), UPRM   **Mayaguez, Puerto Rico**
Computer and Electrical Departments Leader   *August 2019-May 2020*
- Designed, developed and tested software and hardware using Arduino and OrCAD of a paper-tower-builder robot
- Led 5 members from two departments
- Prepared and presented a research poster at the university

CTO Cloud Architecture and Technology Strategy, Bank of America   **Charlotte, North Carolina**
Cloud and Advanced Technologies Analyst   *June 2019-August 2019*
- Completed End-to-End Tools Governance process for 100 use of Non-Core Technology requests
- Spotted and fixed 128 errors in 2 systems of records
- Prevented audit fines of approximately $640,000

Student Design Competition (SDC), UPRM   **Mayaguez, Puerto Rico**
Computer Engineer   *August 2018-May 2019*
- Developed software and hardware using Arduino and OrCAD of an object transporter robot
- Presented a research poster at the university
- Achieved 16th place out of 56 teams in the 2019 American Society of Mechanical Engineers Engineering-Fest North SDC

ORGANIZATIONS

Program for Engineering Access, Retention, and LIATS Success (ePearls), UPRM   **Mayaguez, Puerto Rico**
PLTL Leader   *March 2019-Present*
- Mentored 11 undergraduate students of the ePearls program using Peer-Led Team Learning (PLTL)
- Delivered portfolio, resume and PLTL workshops for 30 students
- Trained 11 new PLTL leaders

Program for Engineering Access, Retention, and LIATS Success (ePearls), UPRM   **Mayaguez, Puerto Rico**
PLTL Leader's Lead   *August 2019-December 2020*
- Participated in the coordination of the ePearls PLTL leaders project
- Helped manage 18 PLTL leaders
- Organized portfolio, resume and PLTL workshops

CONFERENCES

29th International Conference on Parallel Architectures and Compilation Techniques (PACT)   *October 2020*
- Presented the poster "Hybrid Transactional Memory with Just Enough Metadata" in the Student Research Competition (SRC)

AWARDS

ePearls Scholarship   *August 2020*
HSF 2020-2021 Scholar   *May 2020*
HSF 2019-2020 Scholar   *May 2019*

SKILLS

Programming Languages: Java, C, C++, Python, Scala, Arduino
Parallel Programming: PThreads, CUDA, Intel RTM, OpenMP, MPI
Web Development: HTML, CSS, Javascript, React, React Bootstrap, Flask, PostgreSQL, AWS, Heroku, Docker
Operating Systems: Windows, Ubuntu, CentOS
Languages: Native Spanish, full professional English

Valerie E. Reyes Ortiz

Coamo, P.R 00769 | (787) 930-4983 | valerie.reyes5@upr.edu | eunice418ve.wixsite.com/website

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Education

University of Puerto Rico, Mayaguez Campus – B.S. in Software Engineering   **GPA:** 3.44 /4.0
Graduation Date: December 2021
Relevant Coursework: Data Structures, Computer Architecture, Software Engineering Requirements, Software Engineering Design, Operating Systems.

Experience - github.com/valeriereyes5

Mentor | UPRM SummerHacks – Puerto Rico   (07/2020)
- Managed 60 high school students as they followed the "MobileCSP" summer camp.
- Mentored the students as they developed their own apps using App Inventor.

Intern | Lockheed Martin Corporation RMS – Florida   (06/2019) - (08/2019)
- Created a VBA script that takes data from an excel sheet and formats it to another.
- Traveled to various states to recollect information.
- Worked with the data entry process.
- Worked with and was familiarized with agile and scrum methodologies under the systems engineering program.

Instructor | UPRM HacksKids – Puerto Rico   (04/2019)
- Managed, recruited, and taught a group of 7 mentors to help during the programming workshop.
- Taught a workshop for two groups of 30 middle school students to learn programming with Scratch.
- Helped manage and prepare the activity.

Projects   (2018)-(2020)
- Tic-Tac-Toe – Developed a Tic-Tac-Toe Game from scratch using Unity, Visual Studio, and C#. It contained all the basic features.
- Pong – Developed a type of Ping Pong game using Unity, Visual Studio, and C# .

Skills

- Java
- Python

- Basic Knowledge: VBA, HTML, CSS
- Languages: English and Spanish

Activities, Awards & Societies

- Member of the Institute of Electrical and Electronics Engineers   (08/2018)-Present
- WebMaster of the IEEE- Circuits and Systems Society UPRM branch   (01/2020)-Present
- Dean's List   (08/2018) - (05/2020)
- GMIS HEENAC Scholarship as a Lockheed Martin Scholar   (10/2018)
- Participant of the Program for Engineering Access, Retention, and LIATS Success   (08/2018)-Present

Verónica Aurelia Bernier-Ortiz

Salinas, Puerto Rico | (787) 298-3161 | veronica.bernier@upr.edu
linkedin.com/in/veronicabernier/| github.com/veronicabernier

EDUCATION

University of Puerto Rico, Mayagüez Campus, School of Engineering (Aug. 2018-May 2023)
> **Bachelor of Science in Software Engineering**
> Expected Graduation: May 2023
> Cumulative GPA: **3.96/4.00**

Other relevant Courses
> Foundations of Computing, Advanced Programming, Data Structures, Programming Languages, Problem Solving, Intro to Software Engineering, and Computer Architecture

EXPERIENCE

Google Tech Exchange Scholar (Jan. 2021-present)

- Chosen as one of 115 students to participate in Google's "Tech Exchange," a program designed to give access to cutting edge industry courses, increasing preparedness for Software Engineering, Product management & UX internships/careers.

- Taking applied computer science courses (including Applied Data Structures & Algorithms and Human Computer Interaction/UX) taught by Google engineers and experts in the field.

AON Robotics Team – Augmented Reality App (Nov. 2020-present)
- Worked with a teammate to develop an application under 2 months in Unity for users to view the team's robots through their phone camera with AR.
- Worked on 3 features including robot animations.
- Used AR Core to identify planes where a robot can be placed on the AR view.
- Wrote code in **C#** to allow users to select which robot they want to place.

The Program for Engineering Access, Retention, and LIATS Success (PEARLS) (Oct. 2018-present)
- Through workshops and mentoring, I have developed business, time, and budget management skills, soft skills, and more.
- Courses Taken: Intro to Engineering and An Experience with Engineering Learning Communities

IEEE Computer Society (Sept. 2018-present)
- Design graphic and video promotions for the society's events using Adobe Photoshop and LumaFusion.

PROJECTS

Of Course! (Jan. 2021-present)

- Working on a web application for UPR students to track their course work.
- Using agile development to implement the domain entities and functions.
- Developing the frontend part of the pages with **JavaScript** and **ReactJS**.

Unknown Planet Defender (Aug. 2020)

- Developed a Rails Shooter game for web in Unity using **C#**.
- Implemented scripts, particle and sound effects, object tags, and game controls.
- Became acquainted with Unity's Timeline, shaping the terrain game object, and camera movement.

Alternate Voting Method (Feb. 2020)

- Created a program for processing ballots and determining the winner on an election system that allows the voters to choose which candidates they want to vote for by rank using **Java**.

SKILLS

Programming: Java, Python, C#, and JavaScript

Languages: English and Spanish

GitHub, Unity, ReactJS, Lens Studio, Scratch, IBM Cloud, Excel, Adobe Photoshop

Yeran L. Concepción

yeran.concepcion@upr.edu
yeranluis99@gmail.com

linkedin.com/in/yeran-l/
(939) 454-1211

OBJECTIVES:

Seeking an **Internship** where I may use my software engineering background and interpersonal skills to further the company's growth.

EDUCATION:

University of Puerto Rico, Mayagüez, PR
Bachelor's in *Computer Science and Engineering*

Expected Graduation Date: May 2023
General GPA: 3.39/4.0

RELEVANT COURSES:

- Data Structures
- Leadership Seminar 3
- Human Perspective in AI
- HTML, CSS, and Javascript for Web Developers

EXPERIENCE:

ACM-CSE UPRM | Social Media Manager   April 2019 / Present
- Managed the social media platforms of the association, by scheduling and posting weekly.
- Coordinated and promoted the activities offered by the association, using Canva as a tool.
- Maintain communications between members and directive personnel by managing association group chats and mails.

UPRM Hacks! Camp | Instructor & Office Assistant   June 2019
- Helped & mentored students to improve their coding abilities by using the App inventor & Scratch platform.
- Worked hand to hand with the department counselor organizing the given activities.
- Mentored students in Computer Science and Software Engineering by using my personal experiences.

CRE UPRM | Library Assistant   January 2019 / May 2019
- Promoted the library's vast services to visitors through active communication.
- Helped students by teaching them computer skills to manage Office 365 programs.

Global Game Jam At UPRM | Assistant   January 2019
- Keep the structure of the contest by monitoring the participants.
- Organized and scheduled the event's following the Global Game Jam directions.

PROJECTS:

RobotX Competition | Programmer intern   August 2019
- Helped with the integration of a virtual environment while using new technologies as linux.
- Collaborated with other team members in the strategic design to complete the tasks of the competition through BitBucket.

AWARDS & Leadership:

Program for Engineering Access Retention, and LIATS Success (PEARLS)   January 2019 / Present
- Awarded with a five years scholarship given upon my academic achievement.

Ricky Martin Foundation | Member   March 2018
- Developed iniciatives to deal with the human trafficking and educate comunities about its existence.

American Red Cross | Volunteer Member   March 2018
- Volunteered to help communities in case of emergencies, by completing the first aid workshops given by the organization.

United Nations Foundation | Member   December 2017
- Designed a plan oriented by the Sustainable development Goals of the ONU, and exposed them at the 2017 organization symposium.

SKILLS:

- Fully Bilingual
- Advanced in Python
- Advanced in Java
- Proficient HTML & Java Script
- Proficient in C++
- Linux

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Surveying & Topography

Name	Availability	
	Spring	Summer
• **Amarilys Valentín Suárez**	✓	✓

AMARILYS VALENTÍN SUÁREZ

787-675-3912 | amarilys.valentin1@gmail.com
Urb. Jagüey Chiquito Road 411 Kilometre 5.7 Aguada, Puerto Rico, 00602
Porfolio: https://amarilysvalentin1.wixsite.com/misitioamarilys
LinkedIn: http://linkedin.com/in/amarilys-valentín-suárez

EDUCATION

UNIVERSITY OF PUERTO RICO AT MAYAGÜEZ CAMPUS   **AUGUST 2018 - PRESENT**
Bachelor's degree in Survey and Topography
Expected Graduation Date: May 2024

Relevant Courses: Engineering Graphics

ORGANIZATION

ENGINEERING PEARLS UPRM   **AUGUST 2018 - PRESENT**
Leaderships, Internships, COOP and extracurricular activities.
- Attended workshops about Developing a Professional Electronic Portfolios, Resume Preparation and Opportunities for COOP & Internships, Manage the Budget, Plagiarism and Academic Honesty, Undergraduate Research, Planning Your Career Path and IDP.

RESEARCH

FOOD PARTICLE MANUFACTURING   **AUGUST 2020- PRESENT**
We will study de food, know a its properties and how we can convert it into particulate matter.

VEGETABLE AND FRUIT DRYING OR ROASTING   **JANUARY 2020**
Study the coffee roasting process under continuous mode to understand the phenomena and factors to develop and optimize a new continuous process technology.

HYDROPHOBICITY EFFECTS WITH BLADE GEOMETRY EVALUATION ON GRANULE GROWTH   **AUGUST 2019**
Evaluated the effect of formulation hydrophobicity on the growth behavior of a high shear granulation using different angle blades at different rpms with the purpose of seeing how affects the different variables as it is granulated.

EXPERIENCE

SCHOOL VISITS TO CAMPUS   **AUGUST 2019**
Impacted high school students about chemical engineering in the pharmaceutical industries.
- Learn about the manufacturing process of a tablet.

PHARMACEUTICAL ENGINEERING SUMMER CAMP   **JULY 2019**
Mentored and impacted high school students about chemical engineering in the pharmaceutical industries.
- Organized the materials and instruments that students use during the week
- Presented the Drying and Near Infrared station
- Watched for the welfare of each student
- Organized extracurricular activities

SKILLS

Languages: Spanish and English
Coding: Python
Programs: AutoCAD
Machinery: Bench granulator, Sieving, Insitec Analysis, Mixed, Drying and Near Infrared Spectroscopy, Continuous Dryer