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EDUCATION

University of Puerto Rico Mayagüez UPRM — Mayagüez, PR
*B.S. in Software Engineering with minor in Project management; **GPA: 3.48*** — ***Expected Grad: May 2025***
Courses: Data Structure & Algorithms, Software Design/Testing/Requirements, Algorithm Design, Computer Architecture

Google Tech Exchange — Online
Google Tech Exchange Scholar — *Jan 2023 - May 2023*
Courses: Applied Data Structure, Software Development Studio, Careers in Tech

SKILLS

- **Programming languages**: Python, TypeScript/JavaScript, Java, C++
- **Technologies**: Angular, Spring Boot, HTML5/CSS3, Git, Terminal/Bash, Linux, Google Cloud Storage(GCS), CRUD, SCRUM

WORK EXPERIENCE

Microsoft — Redmond, WA
Incoming Software Engineering intern — *May 2024 - Aug 2024*

L3Harris — Chantilly, VA
Software Engineering intern — *May 2023 - July 2023*
- Coded a Full-stack web application using the **Angular** and **SpringBoot** frameworks.
- Calculated satellite's ephemeris (position) using **TLE** data for a 7-day period.
- Displayed the propagated orbits in a **Cesium** 3D globe.
- Used **Jira** to create and manage the sprint's backlog and **BitBucket** to collaborate with others Software Engineers.

Puerto Rico's Seismic Network — Mayagüez, PR
Web Developer — *March 2022 - December 2022*
- Maintained the Seismic Network's website, **Linux** servers and internal tools using **PHP** and **JavaScript**.
- Utilized strong networking skills to troubleshoot and resolve static IP issues efficiently.

RESEARCH EXPERIENCE

Panda Hat - Adversarial — Mayagüez, PR
Research Assistant - Advisor: Dr. Nayda Santiago — *Jan 2024 - Current*
- Used **Python**, **TensorFlow**, **Keras** and **Matplotlib** to create different machine models.
- Exploit different models by doing black-box adversarial attacks like the **one-pixel attack**.
- Literary review of research papers related to adversarial attacks to machine learning models.

RUMBus Research: UPRM — Mayagüez, PR
Front-end Developer - Advisor: Prof. Marko Schutz — *May 2022 - Current*
- Developed the administrative application dashboard using **Typescript** and the **Angular 14** Framework.
- Used **AWS S3** and **AWS Route 53** to host and register the domain, secured with **AWS Certificate Manager**.
- Designed a monitor view to display vehicle positions on a monitor.

PROJECTS

- **Google Tech Exchange Software Development Studio Group Project**:
  - Developed a Full-stack web app with **Python**, **Flask**, **HTML5/CSS3** for users to view and create their wikipages.
  - Used **Google Cloud Storage Buckets** to store the content of the website.
  - Applied **Unit** and **Integration** testing practices that achieved 100% code coverage.
  - Utilized **continuous integration** and **integration testing** to enhance project efficiency and software reliability.
- **Random Poller**:
  - Coded a web application using **HTML5/CSS3**, **Python** with **Flask**, **JavaScript** and **CSV** spreadsheet to store the data.
  - Users can add, remove, and edit participants in the poll to randomly select a participant.
  - Designed command line tool to use the application in the terminal.

ACHIEVEMENTS

4th place in the Bae Systems Think Tank competition in Mayagüez, Puerto Rico — (12/11/2023 - 30/11/2023)
With proposal in **Guidance, Navigation and Controls Subsystems for Autonomous Systems**.

4th place in the Bae Systems Think Tank competition in Mayagüez, Puerto Rico — (20/11/2022 - 02/12/2022)
With proposal in **Lasers Systems for Defense Applications**.