

# YARIEL MERCADO

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## EDUCATION

### University of Puerto Rico at Mayagüez

BS Software Engineering *GPA: 3.71*

Mayagüez, Puerto Rico

Expected Graduation Date: May 2024

**Relevant Coursework:** Object Oriented Programming, Applied Data Structures & Algorithms, Intro to Software Engineering and Development

## TECHNICAL SKILLS

Programming Languages: Python, Java, C++  
Software Tools: HTML, CSS, Bootstrap, Flask  
Other Tools: Git, L<sup>A</sup>T<sub>E</sub>X, CMake

## WORK EXPERIENCE

### NVIDIA

Remote

*Verification Methodology Intern*

May 2022 - August 2022

- Contributed to a metrics dashboard which increased the hardware unit teams' efficiency.
- Metrics board was built with **Flask**, read from **SQL** databases, parsed CSVs with **pandas**, & interfaced **REST APIs**.

### Google

Remote

*Tech Exchange Scholar*

January 2022 - May 2022

- Selected, after several interview rounds, to become a part of Google's tech exchange program.
- Learned **industry best practices** under the supervision of Google project mentors while launching two full stack websites.
- Collaborated with and received 1:1 mentorship from Google engineers in: applied data structures, full stack development, and career orientation.

### VIS Technologies

Toa Baja, Puerto Rico

*PLC Systems Programmer*

December 2019 - January 2020

- Doubled the throughput** of Holsum's assembly line by replacing old and outdated PLC panels with newer ones containing a wider arsenal of commands.
- Collaborated with electrical engineers to develop the PLC interface for Holsum's assembly line.

## TECHNICAL PROJECTS

### Pathway Internships

April 2022

- Deployed with **Heroku** an internship review board website alongside teammates.
- Allows users to post internship reviews for a company under their account. Company scores are appropriately updated and ranked.
- Built the backend utilizing the **Flask** framework. User data is **securely encrypted** and stored along with reviews in a CRUD, **MongoDB** database. Integrated unit testing during development.

### Embedded Systems Elevator Project

July 2021-December 2021

- Developed a virtual elevator management system along members of the RUMarino embedded division.
- Mentored** the first years collaborating with the team and got them up to speed in: **OOP**, **C++**, and **Git**.
- Utilizing two Arduinos serially connected to a laptop, the elevator system, written in **C++**, was remotely controlled via a **Python** GUI on a laptop.

### Sudoku GUI/Backtracking Algorithm Visualizer

July 2021

- Created an interactive Sudoku GUI, implemented with the **Pygame** library, which allows users to not only play the game, but visualize how the backtracking algorithm solves the randomly generated Sudoku grid.

## ASSOCIATIONS

### Computer Alliance of Hispanic Serving Institutions (CAHSI)

August 2021-Present

- Student association network focused on problem solving as well as professional development and networking.

### RUMarino- Autonomous Water Vehicle Club

July 2021-Present

- Alongside the leads of the embedded division at the RUMarino student club, currently an integral part of the software development process of the vehicle prototype.