

# 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, Data Structures & Algorithms, Intro to Software Engineering and Development (Ongoing)

## TECHNICAL SKILLS

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

## WORK EXPERIENCE

### Google

Remote

*Tech Exchange Scholar*

January 2022 - May 2022

- Selected, after several interview rounds, to become a part of Google's tech exchange program.
- Launched a full stack business website developed with **Flask** alongside **MongoDB**.
- Collaborated and received 1:1 mentorship from Google engineers in: applied data structures, **full stack** development, and career orientation.

### VIS Technologies

Dorado, Puerto Rico

*Shipping Handler*

October 2018 - August 2021

- By diligently categorizing items with similar part numbers and maximizing the use of wrapping supplies, **increased** shipping speeds of PLC equipment by 10%.
- After being placed in **charge** of the shipping department, negotiated with suppliers to schedule future packages.

### VIS Technologies

Toa Baja, Puerto Rico

*PLC Systems Programmer*

December 2019 - January 2020

- **Doubled** the throughput of a bread proofing system by replacing old and outdated PLC panels with newer ones containing a wider arsenal of commands.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 bread assembly line.

## TECHNICAL PROJECTS

### 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

- Developed 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.

### Discord Bot

May 2021

- Deployed a discord bot, which communicates with the server via the **discord.py** library, which supports a variety of multimedia commands such as: web scraping, detailed statistical information on COVID-19, and more. Hosted on a **Raspberry Pi 3**.

## ASSOCIATIONS

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

August 2021-Present

- Student association network focused on problem solving via coding, 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, which competes yearly at RoboSub, currently an integral part of the software development process of the vehicle prototype.