

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

Languages: Python, Java, C++
Software Tools: HTML, CSS, MongoDB, Flask
Other Tools: Git, LaTeX, CMake

WORK EXPERIENCE

Google

Remote

Tech Exchange Scholar

January 2022 - May 2022

- Under the tutelage of Google Engineers, developed a full stack business website.
- Excelled in classes while interviewing with various Google Engineers and gaining industry skills in fields such as applied data structures and software development.

VIS Technologies

Dorado, Puerto Rico

Shipping Handler

October 2018 - August 2021

- Placed in charge of shipping PLC equipment to other engineering companies.
- Checked the part numbers for each item to ensure that the boxes being sent contained the correct equipment.
- If any packages were incomplete, ordered the corresponding replacements with the part numbers and scheduled them as the next packages sent out.

VIS Technologies

Toa Baja, Puerto Rico

PLC Systems Programmer

December 2019 - January 2020

- Collaborated with electrical engineers to program a bread proofer, PLC interface for Holsum's bread assembly line.
- Utilized bit addressing to map each function on the bread proofing screen to the PLC.
- Designed the buttons and the various screen tabs displayed which made bread proofing 50% faster.

EXTRACURRICULAR PROJECTS

Embedded Systems Elevator Project *C++, Python, pyserial*

July 2021-Present

- Collaborated with members of the RUMarino embedded division and, utilizing two Arduinos serially connected to a laptop, hosted a virtual elevator management system. Controlled via a Python interface on a laptop. Utilized COBS encoding and UART protocols to communicate between devices.

PERSONAL PROJECTS

Sudoku GUI/Backtracking Algorithm Visualizer *Python, pygame*

July 2021

- Developed an interactive Sudoku GUI which allows users to not only play the game, but visualize how the computer utilizes the backtracking algorithm in order to solve the randomly generated puzzle.

Discord Bot *Python, discord.py, BeautifulSoup*

May 2021

- Deployed a discord bot 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 and critical thinking via coding, as well as professional development.

RUMarino- Autonomous Water Vehicle Club

July 2021-Present

- Passionately a member of the embedded division at the RUMarino student club, which competes yearly at RoboSub. Programming the current prototype's Arduino, the brain of the vehicle.