**Education**

**University of Puerto Rico, Mayagüez Campus (UPRM)**

Bachelor’s Degree in: **Computer Engineering**

Expected Graduation: May **2025**

**Relevant Coursework:** Programming and Algorithms, Probability and Statistics, Software Engineering, Analyzing Electric Systems, Data Structures, Computer Architecture, Electric Measurements Lab, Microprocessors, Advanced Programming, Network Fundamentals, Operating Systems

**Experience**

**Internship at Glaxo Smith Kline (Jun 2022 – Aug 2022)**

* Spearheaded the implementation of disaster recovery plans using Acronis media and virtual machines, significantly reducing backup times and accelerating manufacturing processes by 20%.
* Collaborated closely with cross-functional teams to identify opportunities for improvement and implemented solutions to enhance efficiency and reliability.

**University of Puerto Rico, Mayaguez Campus – Advanced Programming Mentor**

* Provided mentorship and guidance to students in advanced programming courses, offering insights into problem-solving strategies and debugging techniques.
* Facilitated group discussions and workshops to foster a collaborative learning environment and enhance students' understanding of complex concepts.

**Projects**

**MIPS Pipelined Processing Unit Implementation**

* Led the development of a highly efficient pipelined processing unit in MIPS architecture using Verilog, ensuring seamless integration of processor components and adherence to project timelines.
* Conducted rigorous testing and troubleshooting to identify and resolve issues, demonstrating strong problem-solving skills and attention to detail.

**Pacman Video Game**

* Designed and implemented modular code components for a Pacman video game using object-oriented programming principles, resulting in a dynamic and engaging gameplay experience.
* Incorporated advanced features such as power-ups and new game mechanics to enhance player enjoyment and challenge.

**Temperature Measurement with ESP32**

* Engineered a robust and scalable temperature measurement system using ESP32 microcontrollers, Node-RED for data processing, and AWS for cloud infrastructure, achieving real-time data collection and analysis capabilities.
* Optimized system performance and reliability through thorough testing and optimization, ensuring accurate and timely temperature readings in various environments.

**Sensor Guided Robot**

* Developed a sophisticated sensor-guided robot capable of autonomous navigation and obstacle detection using Arduino Uno microcontrollers and IR sensors.
* Implemented advanced control algorithms and sensor fusion techniques to enable precise and reliable navigation in complex environments, showcasing expertise in hardware-software integration and robotics engineering.

**Skills**

* **Languages:**Bilingual (Spanish and English).
* **Computer Skills*:*** Excel, C++, C, Circuit Building, VMWare, Acronis Media, PC Building, GitHub, VsCode, Java, Assembly, Oscilloscopes, Multimeters, Arduino, Node Red, Platform IO, Linux, Verilog, React Native, JavaScript, FreeRTOS, Python