Edyan Cruz

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Education

B.S. in Software Engineering, University of Puerto Rico Mayagüez Campus (UPRM)

Relevant Coursework: Introduction to Computer Science, Calculus I, Calculus II, Ádvanced Programming,

Fundamentals of Computing, Data Structures (currently enrolled)

Cumulative GPA: 4.00

Technical Skills

Languages (C++, JavaScript, TypeScript, Java, Python), Technologies (Git, Node.js, Linux, Docker, ROS, HTML, CSS)

Experience

Software Architect Leader, RUMarino Autonomous Underwater Vehicle (AUV) Team

• Led a team of 3 software engineers in the design, implementation, and maintenance of the software architecture for RUMarino's AUV, which will participate in the RoboSub 2024 competition.

- Designed the AUV's software architecture in collaboration with other divisions, enhancing modularity, scalability, and ease of mainteinance through the use of **ROS** and **Docker**.
- Developed the task planning framework for the AUV to autonomously plan and execute complex tasks based on sensor data utilizing **Python** and **SMACH** (state machines).

Mentor for UPRM Hacks Camp 2023, University of Puerto Rico Mayagüez Campus (UPRM)

• Guided and supported a cohort of 30 students, offering hands-on assistance in coding, app design, and problem-solving using MIT App Inventor.

- Improved group collaboration and participation by 30% through a series of interactive trust-building activities, fostering a collaborative and inclusive learning environment.
- Shared career insights and advice to aspiring computer science and engineering students, demonstrating effective communication and interpersonal skills.

Projects

Discord Applications Bot, Personal Project □

- Created a user-friendly Discord bot using **TypeScript** and **Node.js**, allowing server moderators to seamlessly collect, manage, and organize user applications within the platform interface.
- Added easy export of form data to a CSV file by employing the Sequelize library to integrate SQLite, storing all data in a relational database.
- Improved code quality and reliability by conducting a comprehensive rewrite from **JavaScript** to **TypeScript**.

Snake Game, Academic project (Source code available upon request)

- Developed an unique variant of the Snake video game in C++ using the OpenFrameworks toolkit for the Advanced Programming course.
- Collaborated with a partner throughout development, resulting in an organized and well-tested project while demostrating effective teamwork.
- Implemented swappable sprites for the snake with smooth locomotion, optimizing load times by 50% through the use of a memory cache.

Integral Approximator, Personal Project 🖸

• Built an user-friendly **Python** GUI program for approximating integrals, employing multiple libraries such as **Sympy** for calculating integrals and **PySimpleGUI** to render the GUI.

• Integrated classes for the GUI and the integral approximation algorithms, showcasing proficiency in **object-oriented programming** with **Python**.

Extracurriculars

UPRM Competitive Programming Team, Member

• Collaborated with a team of three members, including myself, to solve challenging programming problems utilizing C++, fostering effective communication, teamwork, and creative thinking.

• Achieved the title of Regional Champion for Puerto Rico at the 2023 ICPC Caribbean Finals (Qualifier) competition, securing a gold medal and an impressive 38th place ranking among all participating groups from Caribbean nations.

Google Tech Immersion, Scholar

• Invited to participate in Google Tech Immersion, an exclusive 5-week remote program for aspiring engineers from HBCUs and HSIs that allows selected scholars to work closely with Google engineers to develop core engineering skills and sharpen CS fundamentals.

Jun 2023 – Jul 2023

Aug 2022 - May 2027

Mayagüez, Puerto Rico

Dec 2022 - present

Mayagüez, Puerto Rico

Jun 2023 - Jul 2023

Mayagüez, Puerto Rico

Apr 2023 - May 2023

Feb 2023

May 2023 - present

Aug 2023