Josean Ralat

787-420-6440 | joseanralat49@gmail.com | Linkedin: Josean Ralat | Github: joseanralat49

EDUCATION

University of Puerto Rico, Mayagüez (UPRM) Mayagüez, Puerto Rico
Bachelor of Science in Computer Engineering 2028
 Major GPA: 4.0
Relevant coursework: Algorithm and Computer Programming, Computer Fundamentals, Advanced Programming

Universidad Complutense de Madrid, Spain Madrid, Spain
Study Abroad Jan 2025-June 2025

EXPERIENCE

MiUni LLC Mayagüez, Puerto Rico
Programmer *Aug 2025- Present*
- Develop and maintain cross-platform mobile applications in Flutter integrated with Firebase, ensuring smooth performance and reliability.
- Design and implement new features to enhance user experience, meet business goals, and optimize overall app efficiency.

Embedded Systems Research Group Mayagüez, Puerto Rico
Research Member *Aug 2025-Present*
- Develop embedded and IoT systems in C/C++ to enhance Puerto Rico's smart grid infrastructure.
- Conduct research and data analysis to advance efficient grid modernization technologies.

LUMA Energy San Sebastián, Puerto Rico
Reliability Team Intern *Jun 2025- Aug 2025*
- Managed reliability metrics and automated reporting for operational efficiency.
- Analyzed performance data to identify outage patterns and improve grid reliability.

Draco | NASA Student Launch National Competition Mayagüez, Puerto Rico
Recovery Member *Aug 2024- May 2025*
- Designed, manufactured, and tested recovery systems to ensure safety recovery.
- Wrote technical documents reporting flight data and system performance.

BRIGHTCE Program | Microsoft Corporation Mayagüez, Puerto Rico
Scholarship Recipient *Aug 2023- May 2024*
- Participated in mentorship, career development, and networking initiatives.
- Engaged in peer mentoring and leadership activities.

PROJECTS

Workout Logger App (Flutter)
- Developed mobile app with Firebase Authentication and Firestore database.
- Implemented add/edit/delete workout features and responsive UI with use of Bloc.

Expense Tracker (Python)
- Developed a Python GUI personal expense tracker with Tkinter.
- Implemented CSV data storage and category based summaries.

Game Development Projects|C++, openFrameworks
- **Asteroids Clone** – Implemented UI elements (score, lives, pause menu, game-over screen) and gameplay features such as color-changing ships, asteroid rotation, and milestone-based extra lives.
- **Aquarium Evolution Game** – Designed an interactive ecosystem using inheritance and polymorphism; added collision detection, multiple levels with unique fish species, and refactored repopulation logic for efficiency.
- **Tetris Clone** – Programmed piece rotation, placement, and hard drop; integrated sound controls, adaptive speed scaling, and ghost-piece visualization for enhanced gameplay experience.

TECHNICAL SKILLS

Programming Languages: C++, Python, Flutter, C, HTML, React, Tailwind CSS
Tools/Platforms: Git, Firebase, VS Code, Android Studio, XCode
Libraries: pandas, NumPy, Matplotlib
Other: CAD Design, Microsoft Office