

# Josean Ralat

joseanralat49@gmail.com | 787-420-6440 | LinkedIn | GitHub: joseanralat49 |  Portfolio

## EDUCATION

<b>University of Puerto Rico, Mayagüez (UPRM)</b> Bachelor of Science in Computer Engineering Relevant Coursework: Data Structures, Algorithms, Advanced Programming, Computer Fundamentals	Mayagüez, Puerto Rico Expected May 2027
---	--

<b>Universidad Complutense de Madrid</b> Study Abroad Program	Madrid, Spain Jan 2025–June 2025
--	-------------------------------------

## EXPERIENCE

<b>MiUni LLC</b> <i>Programmer</i>	Mayagüez, Puerto Rico Aug 2025–Present
---------------------------------------	---

- Develop and maintain cross-platform mobile applications using Flutter and Firebase, focusing on backend data management and user interface performance
- Design and implement new features that improve user experience and integrate seamlessly with backend services

<b>Embedded Systems Research Group</b> <i>Research Member</i>	Mayagüez, Puerto Rico Aug 2025–Dec 2025
--	--

- 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

<b>LUMA Energy</b> <i>Reliability Team Intern</i>	San Sebastián, Puerto Rico Jun 2025–Aug 2025
--	---

- Managed reliability metrics and automated reporting processes to improve operational efficiency
- Analyzed performance data to identify outage patterns and recommend grid reliability improvements

<b>Draco   NASA Student Launch National Competition</b> <i>Recovery Member</i>	Mayagüez, Puerto Rico Aug 2023–May 2024
---	--

- Designed, manufactured, and tested recovery systems to ensure safe payload retrieval
- Authored technical documentation reporting flight data and system performance metrics

## PROJECTS

### Personal Portfolio Website (React, Tailwind CSS)

- Built responsive user interface showcasing projects and professional experience
- Implemented modern UI/UX design patterns and deployed via Vercel for optimal performance

### AI Chatbot Assistant (Python, FastAPI, Groq, Llama)

- Developed intelligent backend chatbot service using FastAPI and Groq API with Llama model
- Implemented structured data models with Pydantic for reliable API responses and smooth UI integration

### Workout Logger App (Flutter, Firebase)

- Developed mobile app with Firebase Authentication and Firestore backend
- Implemented CRUD operations for workout management with BLoC state management and clean UI components

### Expense Tracker (Python, Tkinter)

- Built GUI-based personal finance tracker with CSV data persistence
- Implemented category summaries, data visualization, and intuitive user interface features

### Game Development Projects (C++, openFrameworks)

- **Asteroids Clone** – Implemented UI elements, gameplay mechanics including ship color changes and asteroid rotation
- **Aquarium Evolution** – Designed interactive ecosystem using OOP principles with collision detection and progressive levels
- **Tetris Clone** – Programmed piece mechanics, sound controls, adaptive difficulty, and ghost-piece visualization

## TECHNICAL SKILLS

**Languages:** C++, Python, Dart/Flutter, C, JavaScript, HTML/CSS, Java

**Frameworks/Libraries:** React, Tailwind CSS, FastAPI, Firebase (backend), BLoC, pandas, NumPy, Matplotlib

**Tools:** Git, VS Code, Android Studio, Xcode, Vercel

**Areas:** Backend development, User Interface design, REST APIs, CAD Design, Microsoft Office