

Sebastián Andrés Ramírez González

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EDUCATION

University of Puerto Rico, Río Piedras (UPRRP)

Aug 2022 – Present

BS in Computer Science

- **Relevant coursework:** Calculus III, Discrete Mathematics, Algorithm Design & Analysis, Operating Systems, Linear Algebra, Databases, Web Application Development, Software Engineering
- **Currently taking:** Reverse Engineering
- **Cumulative GPA:** 3.94

WORK AND RESEARCH EXPERIENCES

Modeling Advanced Artificial Networks Laboratory

Jan 2026 – Present

Research Student

UPRRP

- Evaluating machine learning classification methods to detect PFAS in remote sensing data.
- Assisting in the development of the PR-CREWmq to make data visualization more accessible.

Center for Computational Development and Consulting (CDCC)

Aug 2024 – May 2026

Full Stack Developer

UPRRP

- Developed a distributed file system with a web interface to allow researchers to easily access their lab data, as well as currently developing a virtual archive for humanities research.
- Learned and utilized the Flask and Laravel frameworks for both projects, respectively.

Villanova-Puerto Rico Research Retreat (VPR³)

Jun 2025 - Jul 2025

Research Student

Villanova University

- Studied the spectral radii of arithmetical structures on broom graphs.
- Developed algorithms using Python, Sage, SciPy, and SymPy to generate arithmetical structures and their spectral radii with some constraints.

Astrophysics Circle of Puerto Rico

Jun 2024 - Jul 2024

Research Student

UPRRP

- Assisted in research and generated a dataset to train a machine learning model for the identification of galaxies in the Zone of Avoidance.
- Developed a Jupyter Notebook that generated a dataset containing over 700 celestial bodies found in the Spitzer Mapping of the Outer Galaxy.

PROJECTS

User Portfolio Management System

May 2025

Developer

<https://github.com/rammy427/assignment4>

- Web application made using React and Express that allows users to edit and view portfolio information such as skills, education, projects, and internships.

Audio Library

May 2025

Developer

https://github.com/rammy427/audio_lib

- Audiobook library made in PHP aimed at visually impaired customers.

Molenum

Dec 2024

Developer

<https://molenium.ccom.uprrp.edu/>

- Web application made using Python Flask that provides simple and secure remote access to lab data for researchers.

Fire Layers

May 2025

Developer

https://github.com/rammy427/fire_layers

- Tactical RPG with online multiplayer functionality made using Pygame.

Bogo Gift Sort

Dec 2023

Developer

<https://github.com/rammy427/bogogiftsort>

- Video game submitted to the Computer Science Student Association's 2023 Christmas Game Jam made using SFML in C++.

EXTRACURRICULARS AND RECOGNITIONS

Computer Science Student Association

Aug 2025 - Present

Vice-President

UPRRP

- Hosting workshops on various topics in Computer Science.
- Assisting with meeting record keeping, activity communications, and workshop preparations.

Francis Castro Scholarship

Jan 2023 – Present

- Awarded to students who excel in Computer Science and Math courses.
- Participated in workshops and conferences on various Computer Science topics.

MAA MathFest 2025

Aug 2025

Sacramento, CA

- Presented work done on arithmetical structures as part of the VPR³.
- Our research team won a certificate for having one of the **best posters** in the conference.

21st Interuniversity Programming Competition

May 2024

University of Puerto Rico, Bayamón

- Participated with a partner to represent the UPRRP in the Advanced category.
- Our team won **FIRST** place after solving 4 out of 7 problems.

2023 International Collegiate Programming Contest

Sep 2023 – Oct 2023

- Represented our university at the Caribbean Finals.
- Our team ranked in third place among all Puerto Rican teams in the Finals Qualifier.

SKILLS

- **Programming Languages:** C++, Python, HTML, CSS, PHP, JavaScript, C, C#, Sage.
- **Libraries, Frameworks, and Tools:** Scikit-learn, Flask, Laravel, React, Bootstrap, Tailwind CSS, Express.js, NumPy, Matplotlib, Astropy, SciPy, SymPy, Git.
- Familiar with the command line and Windows PowerShell.

MISCELLANEOUS

- **Languages:** fluent in English and Spanish, both spoken and written. Currently learning Japanese.
- **Interests:** video game design and development, math and computer science education, computer graphics, computer vision, software engineering, web development, competitive programming.
- **Musician:** flute and clarinet player.