

Rafael O. Vega Rodriguez

(787) 586-3699 | r.vega27@outlook.com | <https://github.com/rvegarodz>

EDUCATION

Holberton School

Software Engineer - Foundations

San Juan, PR

September 2022 - present

- Graduating July 2023 from a project-based learning program, involving technical skill development related to low-level programming, object-oriented programming, database management and web development
- Relevant projects: AirBnB Clone, Simple Shell Clone, Printf and Search Algorithms

University of Puerto Rico – Rio Piedras Campus

Master of Management and Development of Cooperatives and Social Organizations

San Juan, PR

August 2016 - June 2018

- Completed a comprehensive program covering cooperative theory, legal frameworks, governance, financial management, marketing, social responsibility, and global perspectives on cooperatives.
- Gained practical experience through internships and fieldwork, conducted independent research on energy cooperatives, and engaged with a diverse community of scholars and professionals in the cooperative sector.

University of Puerto Rico – Mayaguez Campus

Bachelor of Economics with a minor in International Affairs

Mayaguez, PR

August 2011 - June 2016

- Completed a rigorous economics program, honing analytical and critical thinking skills through coursework and research projects, while actively engaging with the economics community.
- Gained hands-on experience as an undergraduate researcher, contributing to a publication on a non-PRASA aqueduct pilot plan through research, data analysis, and policy development.

WORK EXPERIENCE

Departamento de Educacion de Puerto Rico

Computer Science Teacher

Caguas, Puerto Rico

September 2019 - June 2022

- Developed tailored lesson plans resulting in a 20% increase in student achievement. Conducted student evaluations and provided feedback on academic progress.
- Coordinated and supervised entrepreneurship-related activities. Collaborated with faculty and staff to ensure an inclusive and safe learning environment.
- Contributed to school technology initiatives by researching and recommending advancements. Maintained accurate records and communicated with administrators and colleagues.

Instituto Nacional de Energia y Sostenibilidad Isleña, UPR

Graduate Researcher

San Juan, Puerto Rico

April 2018 - June 2018

- Coordinated stakeholder meetings and facilitated discussions with community organizations, government agencies, and energy experts to promote the transformation of the energy system in Puerto Rico.
- Contributed to a report on energy cooperatives in Puerto Rico, analyzing cooperative models and investigating their potential for integration into the energy sector.

Liga de Cooperativas

Researcher Officer

San Juan, Puerto Rico

August 2016 – July 2017

- Conducted data analysis and visualization to inform research reports and policy recommendations in the cooperative sector.
- Authored a highly regarded comprehensive guide to cooperative services, coordinated stakeholder meetings, and presented research findings to cooperative stakeholders and government officials.

PROJECTS

AirBnB Clone

A replica of AirBnB built with Python and MySQL

May 2023

- Built a command interpreter to manipulate data without a visual interface, like in a Shell, which helps for development and debugging
- Implemented two options for back-end storage engines: ORM with SQL and File System with JSON
- Completed a website for the front-end, which shows both static and dynamic content
- Integrated an API that provides a communication interface between the front-end and the data from the back-end

Shell Clone

A replica of Shell built in C

December 2022

- Developed a command interpreter that works like Shell, with the use of system calls and zero memory leaks
- Implemented signal handling and two modes of usage: interactive and non-interactive

SKILLS & INTERESTS

- **Languages:** Spanish (native) and English
- **Programming Languages:** C, Python, R, HTML, CSS, JavaScript, Flutter, SQL and NoSQL
- **Tools:** Bash, Git, Vim, Visual Studio Code, MySQL, Firebase, Office Suite and Power BI
- **Skills:** Self-learning, Problem Solving, Time Management
- **Soft-Skills:** Public speaking, Teaching, Teamwork