

# RUBEN FRANCISCO CARBAJAL

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## EDUCATION

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**Boston University College of Engineering**, Boston, MA

**ANTICIPATED GRADUATION:** May 2024

*B.S. Computer Engineering*

**GPA:** 3.37

Coursework: *Comp. Organization, Comp. Networking, Applied Algorithms, Signals & Systems, Statistics & Data Science*

## WORK EXPERIENCE

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**JP Morgan Chase**, Houston, TX

June 2023 – August 2023

*Software Engineering Intern*

- Automated two internal services for the firm to improve efficiency by converting a manual process of ~15 minutes to under 2 minutes on a software used by 110k unique users
- Produced the full stack of the automation, by configuring the User Interface, API validations, and end points through a variety of programming languages and frameworks
- Participated in a variety of event such as: competitions, hackathons, and professional workshops

**JP Morgan Chase**, Columbus, OH

June 2022 – July 2022

*Software Engineering Fellow*

- Deployed a student loan website with payment plans, forgiveness info, and news at a hackathon, with three others
- **ONE STEP:** <https://jpmc-olumbus-hackathon.vercel.app/my-steps> -Nivo Charts, nyt API, React, JS, HTML/CSS
- Consulted with Citizens' Trust Bank executives on a several thousand-dollar program to increase traditionalist consumers recruitment by creating and pitching a marketing plan with four others

## SKILLS

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**Technical:** C++ | C | Java | JavaScript | HTML | CSS | Verilog | Matlab | Groovy | MIPS | Git | Arduino | Python

**Certifications:** AWS Cloud Partitioner (Amazon) | Goldman Sachs FinTech Engineering (Forage)

**Languages:** English (Fluent) | Spanish (Fluent)

## PROJECTS

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### Pipelined CPU

- Architected a processor that allows concurrent execution of multiple instructions by configuring multiple stages to optimize efficiency in Verilog using Vivado

### STOCK TICK website

- Developed a website that provides stock information, including a live ticker of stock behavior over the past year, stock details, recent news cards, and company summaries with three other people
- Sourced information from API Polygon, and used Apexcharts, Finnhub, Axios, HTML, CSS, JS, and React

### Custom Pokémon Game

- Created a Pokémon game where the user can heal their Pokémon at Pokémon Centers, encounter wild Pokémon, and beat the game by defeating all the Pokémon Gyms.
- Designed the game layout and behavior all through C++ and utilizing object-oriented programming.

### Flood Detector

- Prototyped an Arduino to detect water levels and notify someone via email with the relayed information
- Programed a microcontroller to dictate water level from the voltage read by a water sensor, with two others

### Digital Clock/Timer

- Instructed a FPGA to display via VGA by creating a millisecond debouncer in Verilog, with two others

### Network Usage Monitor

- Configured Python scripts that will monitor application's upload and download speed, and time created

## LEADERSHIP EXPERIENCE

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**Society of Hispanic Professional Engineers**, Boston, MA

August 2021 - Present

*President*

- Facilitated communication between the university, companies, and our E-board to plan 30 events and raise \$20k for National Convention throughout the year.
- Sourced partnerships to create professional and social events that develop 50+ members, while managing and working with a team of 12