




GABRIEL CORTEZ

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EMPLOYMENT

Exactech, Software Engineer Intern, Gainesville, Sep. 2024 - Dec. 2024

- Designed and implemented quality of life features in the frontend for the **React Native** application for both developers and users.
- Implemented new features in both the server and frontend for the internal app with **over 500 users**.
- Integrated **Cucumber and Detox** for tests to streamline development while fulfilling the desires of the users.
- Solved bugs for the build pipeline, the UI, and the server for a better user experience.

Agritisan Farms, IoT Developer Intern, Singapore Jun. 2022 - Aug. 2022

- Enhanced efficiency and scalability of an **IoT** system within 8 weeks through strategic hardware and architectural optimizations.
- Improved cost-effectiveness of the system by **70%** through strategic hardware selection.
- Implemented a virtual machine that utilizes NodeRED, MQTT, and **MongoDB**, with a foundational firewall for security.
- Thoroughly validated **JSON** message transmission from sensors to **virtual machine**, allowing data integrity.

SKILLS

LANGUAGES: C, C++, Java, Go, TypeScript

MISCELLANEOUS: GCP, Azure, Linux, Cloud, Virtual Machine, Git, IoT, React, NextJS

PROJECTS

Chip-8 Interpreter Feb. 2025 - Feb. 2025

- Developed an interpreter in C to simulate Chip-8 programs, executing opcodes with bitwise operations.
- Implemented memory management and CPU cycle handling to accurately process Chip-8 instructions.

Inventory Tracker Jul. 2024 - Jul. 2024

- Built a **NextJS** web app utilizing **Firebase** and the **OpenAI API** to store pantry items, get suggestions based on database items, and also identify how many items are in a picture and store it in Firestore.
- Implemented **CI/CD** practices by deploying the application through Vercel.

NodeICU Sep. 2023 - Dec. 2023

- Collaboratively engineered a smart lock incorporating **2FA**, **Supabase**, and dual ESP32s.
- Implemented Supabase **edge functions**, enabling bidirectional communication for the ESP32 devices.
- Developed a user-friendly dashboard, serving as the interface for users to manage database entries and utilize 2FA OTP.

Group Event Planner Jan. 2023 - Apr. 2023

- Spearheaded the development of an event planning website, enabling seamless group coordination and collaboration.
- Leveraged a tech stack including **Go**, **Angular**, **GORM**, and **CRUD** to architect and construct the platform.
- Successfully implemented **Agile methodologies**, while meticulously maintaining comprehensive project documentation.

Acorn Jul. 2024 - Jul. 2024

- Developed a hackathon project that utilizes the **GitHub API** and **OpenAI API** to summarize GitHub documentation.
- Implemented **CI/CD** practices by deploying the application through Vercel.

HTTP Server Jun. 2024 - Jun. 2024

- Built a HTTP server in **Java** from scratch that responds to requests according to the URL path within the request
- Server is able to handle compression and concurrent connections, parse through headers, return requested files, and store requests.

Go Container Jun. 2024 - Jun. 2024

- Built a **Docker** container from scratch using **Go** to allow an executable to be run in an isolated environment.
- Created namespaces and control groups to limit what the container can see and use.

EDUCATION

University of Florida Aug. 2021 - Dec. 2024

B.S. Computer Science