

Najel Alarcon

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EDUCATION

University of California, Santa Cruz

Bachelor of Science in Computer Engineering, Minor in Computer Science

Santa Cruz, CA

Sept. 2019 – June 2023

EXPERIENCE

Cashier/Line Cook

Senor Sisig

June 2022 – Present

San Francisco, CA

- Managed a high volume of transactions while maintaining a friendly and professional demeanor
- Demonstrated expertise in assembling and preparing food with precision, ensuring each item met quality standards

Software Engineer Intern

Alef Aeronautics

Oct. 2020 – Apr. 2021

Santa Clara, CA

- Contributed to flight control software development for a flying vehicle startup
- Utilized HTML, CSS, and JavaScript to create a responsive intuitive user interface for monitoring vehicle systems
- Managed codebase using Git, ensuring version control and documenting changes and updates

PROJECTS

Slack Clone Mobile Application | *Kotlin, Swift, React Native, Barista, XCTest, Jest*

- Developed a Slack clone mobile application in Kotlin, Swift, and React Native
- Implemented RESTful API integration to enable real-time messaging, authorization tokens for access, and collaboration features within the application
- Conducted unit tests and debugging to identify and fix software defects, enhancing the stability and reliability of the application

Web Proxy | *C, Socket Programming, HTTPS Protocol, SSL*

- Implemented a web proxy converting HTTP requests to HTTPS
- Converted requests using SSL sockets, returning responses to client
- Employed multithreading for concurrent handling of up to 50 clients
- Featured a database of forbidden hosts that can be altered and reloaded upon a SIGINT signal

File Transfer | *C, Socket Programming, UDP*

- Developed a proxy reliable file transfer application in C, utilizing the User Datagram Protocol (UDP)
- Designed and implemented a selective repeat protocol on top of UDP to ensure reliable and error-free file transfer
- Implemented error detection and correction mechanisms

HTTP Server | *C, Socket Programming, HTTP Protocol*

- Developed a fully functional HTTP server supporting CRUD operations
- Organized/accepted HTTP requests via a thread-safe bounded buffer between clients and server
- Used TCP for client and server communication

IoT Obstacle Detection System | *C++, Arduino Nano BLE 33, IRAS Sensors*

- Developed an IoT Obstacle Detection System utilizing Arduino Nano 33 BLE
- Integrated GPIO read/write for obstacle detection to trigger an external red LED, displayed IRAS messages on LCD
- Configured Nano 33 BLE as a peripheral device, enabling real-time updates via BLE Cell Phone App or BLE console

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, HTML, CSS, Swift, Kotlin, Java

Frameworks: React.js, React Native

Developer Tools: Git, Unix, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

Libraries: pandas, NumPy, Matplotlib