

Kieran Michael Valino

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Education

California Polytechnic State University (San Luis Obispo, CA)

Bachelor of Science in Computer Engineering

June 2024

Relevant Coursework: Intro to Computer Networks, Network Security, Intro to Operating Systems, Systems Programming, Computer Architecture, Microcontrollers and Embedded Applications, Object-Oriented Programming and Design, Intro to Computer Security, Intro to Database Systems, Technical Writing for Engineers

Technical Skills

- **Programming Languages:** C, Python, Swift, Bash, HTML, CSS, JavaScript, SQL, Java, SystemVerilog
- **Development Tools:** Visual Studio Code, Xcode, Git, LTSpice, STM32CubeIDE, Arduino IDE, Xilinx Vivado, MATLAB
- **Technologies and Frameworks:** React Native, Expo, Node.js, Google Firebase, UNIX, Kubernetes, Docker

Project Highlights

Chat Program

- Developed a chat program using IPv6 TCP connections for client-server communication.
- Efficiently handled custom Protocol Data Units (PDUs) for seamless message routing to their intended clients.
- Implemented features such as listing all currently connected clients, broadcasting messages, and multicasting to specific groups.

Home Labs Server

- Deployed a resilient and robust home server environment with TrueNAS Scale OS.
- Implemented Kubernetes and Docker for efficient containerization and management of services, optimizing resource utilization and scalability.
- Configured DNS services for seamless domain name resolution, enhancing accessibility and usability of hosted applications.
- Utilized Tailscale VPN for secure access to the server's file system from external networks.

Cal Poly BattleBots

- Spearheaded the development of an iOS controller app for a competition-grade Battlebot, featuring touchscreen controls, field orientation settings, and weapon/power activation buttons.
- Implemented ESP32 BLE server and iOS Bluetooth manager for seamless wireless communication between iPad and microcontroller.

Chit Chat Cove

- Developed a location-based social media app for anonymous discussions where users can create posts, engage with nearby posts by upvoting and commenting, and receive push notifications.
- Leveraged Google Firebase for real-time data storage and synchronization, managing user accounts, posts, upvotes, downvotes, and comments seamlessly.
- Utilized React Native and Expo for efficient cross-platform development, ensuring compatibility with iOS while providing potential for future expansion to Android.

Digital Multimeter

- Designed a digital multimeter on an STM32 microcontroller, utilizing onboard ADC for precise voltage measurements.
- Implemented FFT for frequency analysis, enabling advanced signal processing.
- Utilized RS232 protocol for laptop communication, enabling real-time display of measurements.

Work Experience

iFixit - San Luis Obispo, CA

July 2022 - Present

Shipper

- Accurately pick, package, and label multiple orders of electronic repair parts like screens and batteries for consumers as outgoing packages while constantly considering weight, size, and part durability all in an effort to support a consumer's right to repair.

Leadership and Involvement

- Boy Scouts of America - Eagle Scout Fall 2007 - Present
- Pilipino Cultural Exchange - Member September 2019 - June 2022