

# Kieran Michael Valino

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## Profile

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- Goal-oriented self-starter with initiative and work ethic
- Self-motivated computer engineer with a robust foundation in programming and hardware development
- Committed to continuous learning to develop technologies that enhance everyday lives
- Excellent verbal communication abilities, able to build lucrative relations with clients and colleagues
- Driven to successfully coordinate multiple projects simultaneously
- Hands-On and Action-oriented

## Technical Skills

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- Programming Languages
  - C/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, TCP, IP, DNS, IPtables, STM32, ESP32, Bluetooth, RS232, UART, SPI, I2C

## Project Highlights

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- **Chit Chat Cove** - *Senior Project / React Native / Expo / Node.js / Google Firebase*
  - Developed a location-based social media app for anonymous discussions where users can create posts, and engage with nearby posts by upvoting, commenting, and receiving push notifications.
  - Leveraged Google Firebase for real-time post/comment metadata data storage and user account management
  - Utilized React Native and Expo for efficient cross-platform development with iOS and Android.
- **Cal Poly BattleBots** - *Capstone Project / Swift / C++ / Bluetooth / ESP32 / iOS / User-Interface Design*
  - Spearheaded the development of an iOS controller app for a competition-grade Battlebot for an independent client, featuring touchscreen controls, field orientation settings, and weapon/power activation buttons.
  - Implemented an ESP32 BLE server and iOS Bluetooth manager for efficient wireless communication between iPad and microcontroller.
- **Digital Multimeter** - *C / Embedded Systems / STM32 / Analog-to-Digital / RS232 / UART*
  - 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.
- **Function Generator** - *C / Embedded Systems / STM32 / Digital-to-Analog / SPI*
  - Developed a function generator on an STM32 board, utilizing an external keypad and DAC via SPI to produce various waveforms (sinusoidal, triangle, sawtooth, square) at 3V.
  - Implemented features for adjustable frequency ranges and variable duty cycles, enhancing waveform customization and providing precise control over output signals.
- **Home Labs Server** - *Networking / DNS / Kubernetes / Docker / Web Hosting*
  - Deployed a resilient and robust home server environment with TrueNAS Scale OS, hosting various applications and web services with DNS services configured for seamless domain name resolution.
  - Implemented Kubernetes and Docker for efficient containerization and management, optimizing resource utilization and scalability.

## Education

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- California Polytechnic State University, San Luis Obispo Graduation Date: June 2024
  - Bachelor of Science in Computer Engineering
  - GPA: 3.1

## Leadership Affiliation

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