

Monty Choy

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San Francisco, CA

montychoy.com | [linkedin.com/in/montychoy](https://www.linkedin.com/in/montychoy) | github.com/mochoy | suild.com

Education

California Polytechnic State University, San Luis Obispo

(Junior) Expected Jun. 2022

BS Electrical Engineering - 3.95 Major GPA

San Luis Obispo, CA

- Dean's List; CP Hyperloop Control Systems design lead, CP SLO Breakers, Yu-Gi-Oh Club

Experience

Microsoft

Jun. 2020 - Sep. 2020

Software Engineering Intern - Surface Duo Firmware Engineering

(Remote) Sunnyvale, CA

- Brought-up, integrated, developed, & customized sensor device driver for commercialization on Qualcomm Snapdragon SoC sensors processor & applications processor HAL
 - Debugged hardware, registry loading, & system integration for successful driver initialization
 - Configured dual sensor instance & exposed sensors to Android framework in C & C++
 - Programmed hardware register configuration functionality from external sensor entities
- Developed Android app, Android framework, & native libraries for modem configuration

Apple

(9 Months) Jan. 2019 - Sep. 2019

Hardware Engineering Intern - Apple TV Hardware Engineering

Cupertino, CA

- Designed electrical, mechanical, & software system to characterize IR performance
 - Developed embedded abstraction layer on STM32 MCU for closed-loop motor control, LCD drives, sensor/peripheral control, & I2C & UART communication
 - Programmed Python application as flexible entry point into embedded systems over USB
- Architected, prototyped, & designed HDMI dev platform PCB. Design lead for DC-DC power, USB, & debug subsystems. Collaborated on high-speed digital (HDMI) & MCU subsystems
- Led validation, debug, & FA efforts: HDMI (CTS), PMU, SoC, UART, NAND, PCIe & PDM mic hardware subsystem, & multilayer PCB failure
- Analyzed A-series SoC thermal & power performance across temperature & process corners
 - Wrote Python scripts for Serial data collection to measure long-term device performance

Suild

Feb. 2018 - Jul. 2020

CEO

San Francisco, CA

- Shipped 1k+ units to 10+ countries on webstore with 30k+ annual sessions & \$15k+ revenue
- Managed entire product design lifecycle of multiple electronics products from concept, architecture, prototype, design, coding, validation, assembly, manufacturing, testing, & shipping
- Deployed frontend, backend, & system architecture e-commerce website with MERN stack

Projects

Find more at suild.com & montychoy.com

Suild.com - suild.com

Feb. 2018 - Jul. 202

- Webstore that receives 30k+ annual sessions & processes \$15k+ revenue
- Hosts interactive web applications, technical documentation, & e-commerce functionality
- Built with MERN stack, React Router, Google Analytics, Paypal API, & Material-UI

Technical Skills

- **Web Development:** React, Node.js, MongoDB, JavaScript, Python, HTML, CSS, JSON, npm
- **Embedded Programming:** C, C++, device drivers, HAL, RTOS, bus controllers, RISC-V