Enoch Y. Chau

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Education

M.Eng. Embedded and Cyber-Physical Systems | UC Irvine, CA — Exp. Grad Dec. 2021

B.S. Electrical Engineering: Electronic Circuit Design | UC Irvine, CA — Sep 2016 – Jun 2020

- GPA: 3.48/4

Experience

Hardware Engineering Intern | Panasonic Avionics Corporation, Lake Forest, CA — Jun 2019 – Aug 2019

- Investigated hardware issues in airplane entertainment systems
- Resolved component obsolescence by evaluating replacement parts
- Completed ESD, thermal, and power cycle tests per FAA regulations

Research Assistant | California Plug Load Research Center, UC Irvine, CA — Apr 2019 – Jun 2020

- Created RTOS firmware with Arduino to interface sensors (I2C, SPI, UART)
- Implement IoT using Wi-Fi connected ESP32 microcontrollers
- Manage and on-board new members by dividing work in specific tasks
- Perform hardware troubleshooting, PCB population, and SMD rework

Peer Academic Advisor | School of Engineering, UC Irvine, CA — Mar 2018 – Jun 2020

- Organize and present workshops addressing Engineering career pathways and study abroad
- Advise engineering students in curriculum planning and degree progress checks for ABET certification

Projects

Boulder Field (personal) — Jul 2020 – Aug 2020

- Suggests climbing routes by pulling data from the Mountain Project API
- Designed an intuitive user interface using React

Coffee Grams (personal) — Mar 2020 – Jun 2020

- Prototyped an IoT coffee scale using Python with a Raspberry Pi
- Developed a web interface using LAMP stack
- Created a PCB design using KiCAD

GPS Sound Sensor (UCI Senior Design) — Sep 2019 – Mar 2020

- Worked with a team of four to create a sound-based location sensor
- Wirelessly connected Android application UI with location sensor using MQTT protocol
- Developed Embedded Linux firmware to interface with RS-232 GPS module

Scale Up (SD Hacks Hackathon) — October 2019

- Used machine vision and a food scale to track calories of simple foods
- Created Python code to interface Raspberry Pi with food scale

HC2: IoT Environment Sensor — Aug 2019 – Jan 2020

- Developed drivers in both C++ and Python to interface with Rotronics HC2 temperature sensor
- Created a simple sensor network using LoRa and Wi-Fi

Skills

Programming:	C, C++, SystemC, Python, JavaScript
Firmware:	freeRTOS, Arduino AVR, ESP32/ESP8266, Raspberry Pi
Software:	Git, KiCAD, PSpice, Mathematica, Excel VBA
OS:	Linux, Windows
Lab Tools:	Oscilloscope, Soldering
Web Dev:	React.js, HTML, CSS
Language:	Conversational Mandarin Chinese with some reading and writing