Enoch Y. Chau

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Education

B.S. Electrical Engineering: Electronic Circuit Design | UC Irvine, CA   Sep 2016 – Jun 2020
- GPA: 3.48/4

Experience

Research Assistant | California Plug Load Research Center, UC Irvine, CA   Apr 2019 – Jun 2020
- Developed and maintained IoT energy management systems.
- Managed and on-boarded new members by dividing work into specific tasks.
- Updated documentation and applied for grants.

Peer Academic Advisor | School of Engineering, UC Irvine, CA   Mar 2018 – Jun 2020
- Researched, organized, and presented workshops addressing Engineering student topics.
- Advised students in various engineering fields on curriculum planning and degree requirements.

Hardware Engineering Intern | Panasonic Avionics Corporation, Lake Forest, CA   Jun 2019 – Aug 2019
- Investigated hardware issues in avionics entertainment systems.
- Created reports to suggest replacements for obsolete components.
- Completed ESD, thermal, and power cycle tests per FAA regulations.

Projects

Mechanical Numpad (personal)   Dec 2020 - Current
- Designing and fabricating a mechanical numpad PCB and case.
- Implementing open source keyboard firmware.
- Creating a build guide.

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.js and Material UI.

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 the Android application UI with the location sensor.

Buddy Projects (California Plug Load Research Center)   Apr 2019 – Jun 2020
- Created RTOS firmware with Arduino to interface sensors (I2C, SPI, UART).
- Implement IoT using Wi-Fi connected ESP32 microcontrollers and MQTT protocol.
- Performed board debugging by using lab tools and writing test firmware.
- Populated, soldered, and reworked boards as needed.

Poly-Phase Wattmeter (California Plug Load Research Center)   Mar 2019 - Jun 2019
- A development board for the ADE9078 three phase wattmeter.
- Configured the waveform buffer and made FFT demo code.
- Created a demo UI to see FFT readings.

Skills

Programming: C, C++, Python, Rust, JavaScript
Web Dev: React.js, HTML, CSS
Firmware: freeRTOS, AVR (Arduino), ESP32/ESP8266, Raspberry Pi
Software Tools: Git, KiCAD, Excel VBA, Markdown, MS Office, Google Office
Lab Tools: Oscilloscope, Soldering (traditional and hot air), Digital Multimeter
OS: Linux, Windows
Language: Conversational Mandarin Chinese with some reading and writing