

Enoch Y. Chau

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Experience

- Full Stack Software Engineer** | GoSite, San Diego, CA (remote) Apr'21 – July'21
- Increased user conversion by 30% by creating onboarding and retention products.
 - Owned projects by creating REST APIs, front-end UI, tests, and documentation on a MERN stack.
 - Improved code quality by introducing TypeScript and implementing unit, integration, and E2E tests.
- IoT Research Assistant** | California Plug Load Research Center, UC Irvine, CA Apr'19 – Jun'20
- Developed firmware and debugged hardware for IoT energy management systems.
 - Modularized a complex firmware program into understandable chunks by splitting code and updating documentation to improve readability and maintainability for future members.
 - Trained new members by delegating project work based on each individual's strengths and weaknesses.
- Hardware Engineering Intern** | Panasonic Avionics Corporation, Lake Forest, CA Jun'19 – Aug'19
- Investigated hardware issues by using an oscilloscope, a multimeter, and proprietary test machines to provide data for engineering reports.
 - Verified Federal Aviation Administration safety requirements using ESD, thermal stress, and power cycle tests to identify and replace potentially hazardous hardware in airplanes.
 - Evaluated potential hardware components to replace obsolete SSD and RAM in avionics entertainment systems by analyzing datasheets and creating Linux test scripts.
 - Saved over 100 Engineering hours by introducing automated power cycle testing using Python and Raspberry Pi.
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Education

B.S. Electrical Engineering | UC Irvine, CA | GPA: 3.48/4.0 Sep'16 – Jun'20

Projects

- Chat App** (personal) Mar'21 - Apr'21
- Created a chat app similar to Facebook Messenger using TypeScript, Node.js, PostgreSQL, and React.js
 - Maintaining project integrity at every step by writing unit tests and integration tests with Jest.js.
 - Developed custom Websocket handler and tracking system for active chat groups.
- Mosaic** (personal) Jan'21 - Feb'21
- Mosaic is a user based full stack web app for creating and sharing randomly generated mosaic style images.
 - Managed user data flow by creating a REST API web server using Node, Express, and MongoDB.
 - Implemented a React based front end to create, edit and share mosaic images between users.
 - Controlled authorization of users by using JSON web tokens to protect API endpoints and client side routes.
- MCutie** (personal) Jan'21 - Feb'21
- Developed a RESTful web server for real time sensor logging by using WebSockets, SQLite3, Express, and Node.
 - Created a web application with an intuitive user interface to visualize collected sensor data using React.
 - Forked the project into a cloud based deployment using the Heroku platform and PostgreSQL.
 - Building IoT sensor nodes controlled by the server to monitor plant moisture and other home automation tasks.
- Buddy Projects** (UCI: California Plug Load Research Center) Apr'19 – Jun'20
- Developed power management systems for office appliances to provide data for energy conservation research.
 - Developed C++ firmware using freeRTOS and Arduino to interface sensors using I2C, SPI, and UART protocols.
 - Created IoT-connected devices to interface with a home energy management server backend.
 - Saved over \$50 per PCB by populating and repairing custom PCBs using a reflow oven, hot air, and soldering.
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Skills

- **Programming:** TypeScript, JavaScript, C, C++, Python
- **Web Technologies:** React.js, Express.js, SQL, MongoDB, HTML, CSS
- **Software Tools:** Git, Markdown, Jira, Google Workspace, Microsoft Office, KiCAD, LibreCAD
- **OS:** Mac OS, GNU/Linux, Windows
- **Language:** Conversational Mandarin Chinese with some reading and writing