

Ting-Hsuan Chen (Sharon)

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Electrical & Computer Engineering Student with **US/Taiwan citizenship** looking for opportunities in the electrical/mechanical engineering field.

Projects

Senior Design Project

Corvallis, OR

Seat Check: IoT Car seat

Sep 2022 – Jun 2023

The [project](#) aims to develop a comprehensive child safety-used open monitoring system for vehicles using open-source hardware and software.

- Utilize Arduino UNO as the base station to stream data back to the PC. Software on PC running Arduino to process serial data and convert it to an analog signal.
- Develop a proximity sensor device based on low-power Bluetooth 4.0 signal strength using RP2040. The distance measurement was adjustable in the source code. The system is enclosed in a wooden container and powered by a Li-ion battery with a custom battery management system.
- Designed and fabricated a custom PCB using KiCad for the Nano RP2040 Board.

Desktop LED Matrix With Touchscreen

Sep 2021 – Mar 2022

This [project](#) is a 5x5x7 RGB LED matrix controlled by a touchscreen GUI, involving hardware integration and software development.

- Utilize Arduino Mega as the base station to perform the various animations coded with Arduino as instructed by the Raspberry Pi.
- Develop and optimize an LED control system, in which the code is able to control 175 LEDs and make various animations.

Education

Oregon State University

Corvallis, OR

Bachelor of Science in Electrical and Computer Engineering

Sep 2017 - June 2023

GPA: Engineering subjects 3.10

Cumulative: 3.07

Technical Skills

Languages: Python, C/C++, Assembly languages

Software/Simulator: LTspice, KiCad, MATLAB/Simulink, ArduPilot, OpenCV, AutoCAD, SolidWorks, PCB Design

Hardware: Sensors, Micro-controller, Raspberry Pi, Oscilloscope, System Verilog, Questa

Work Experience

- **International Student Services Assistant** Dec 2019 – Mar 2021
INTO Oregon State University
- **Front Desk Waiter** May 2021 – Dec 2021
The Show Chinese Restaurant
- **Student Dormitory Painter** Jun 2021 – Sep 2021
UHDS Oregon State University
- **Volunteer Worker** Jan 2021 – May 2021
Local Wood Workshop
- **Mechanical Assembly Assistant** May 2020 – Jul 2020
Yuante Company
- **STEM Camp Instructor** Jun 2019 – Aug 2019
Mobile Invention Summer Camp, Oregon State University
- **President** Sep 2018 – Jun 2019
Sponsored Taiwanese Student Association, Oregon State University
- **Research Program in 3D-printing (Solid work)** Sep 2018 – Jun 2019
Women's in Engineering Department, Oregon State University