

EDUCATION

Oregon State University

Sept 2017 - July 2021

Major: Electrical and Computer Engineering

Minor: Computer Science

Cumulative GPA: 3.45

WORK EXPERIENCE

RRC Power and Energy / Electrical Intern

March 2020 - Present

- Assisted project engineers on delivering project packages by simulating voltages, currents, and ampacity generated by solar or wind farms using NREL S.A.M. and CYMCAP; Created study reports delivered to the clients.
- Created Excels by using VBA to streamline company's process of string sizing calculations.
- Created Excel that can automatically generate new cable schedule with cable splice placements; Calculates number of cable reels that were used and any waste that were generated.

College of Engineering Undergraduate Research

June 2020 - August 2020

- Researched and designed a fluorescence microscope controlled by a smartphone and a Raspberry Pi; After a picture has been taken, the Raspberry Pi automatically sends the pictures, data, and plotted graphs to an email address.
- Edited existing 3D design files and 3D printed all physical components.
- Created an Android app that allows Wi-Fi communication between smartphone and Raspberry Pi by using Android Studio. Used Python for Raspberry Pi programs.

Center for Diversity & Inclusion / Student Intern

Aug 2019 - Present

- Work directly with the Recruitment & Diversity Initiatives Coordinator to assist more than 4,000 underrepresented student groups by planning and executing events, leading social media campaigns, and creating marketing materials.
- Work towards creating an inclusive environment for all underrepresented students.

College of Engineering / Student Ambassador

May 2019 - Present

- Representing the College of Engineering; Work closely with students of all levels and of all major to increase their interests in engineering.
- Provided engineering tours for prospective students and their families.
- Participated in engineering outreach programs and student leadership events to increase student enrollment.

College of Engineering / Teaching Assistant

Sept 2019 - March 2020

- Digital Logic Design and Electrical Fundamentals II teaching assistant; Lead lab sessions every week with 45+ students.
- Taught and aided students in creating and debugging FPGA designs, AC circuit analysis and teaching oscilloscope fundamentals.
- Worked towards improving student participation during the lab by fostering a welcoming and inclusive environment; Collaborated with the professor at weekly meetings, voicing ideas and contributed to new lesson plans.

PROJECTS

2-Axis Robotic Arm

Nov 2019 - June 2020

- SCARA topology; The robotic arm is controlled by either G-Code or user muscle contraction and wrist movement.
- Created MATLAB GUI that's able to communicate between MATLAB and Arduino, successfully sending and differen G-Code commands and correctly parsing data to Arduino. Programmed Arduino to be able to differentiate G-Code commands, as well as take in X, Y coordinates and output to motors.
- Programmed all sensor mapping; Set EMG signals as a trigger to move the arm and calculated accelerometer data into angle.

Audio Visualizer

Oct 2019 - Nov 2019

- A system which takes in an audio signal, performs Fast Fourier Transform on the audio signals and maps to three rows of LEDs corresponding to different frequency ranges.
- Created all hardware design; Implemented correct configuration for operational amplifier, and output to the LEDs.

POV Wand

Sept 2019 - Oct 2019

- A wand consists of one row of LEDs, using Persistence of Vision principles to display words of seven letters or greater.
- Soldered all hardware; Programmed the timing of input data from accelerometer to determine when to display images/letters forward or backward and all outputs to the LEDs.

TECHNICAL SKILLS

- C, C++; MATLAB, FPGA, VBA, Arduino programming
- Circuit Analysis; LTspice; CYMCAP; NREL SAM

RELATIVE COURSES

- Data Structures (CS261)
- Engineering Magnetics (ECE 411 - in progress)
- Senior Design (ECE44x - in progress)
- Contemporary Energy Applications (ECE 530 - in progress)
- Power Systems Analysis (ECE433 - in progress)