

# RESEARCH

#### CALIFORNIA PLUG LOAD RESEARCH CENTER

#### Undergraduate Researcher

Jan 2018 - Present | Irvine, CA

- Working on implementation of the ESP-WROOM-32 and ESP8266 in an embedded system that uses RTOS, I2C and SPI protocols to create an Internet of Things device.
- Building solution systems to work in conjunction with existing consumer products in order to control and manage their power consumption without human intervention.
- Tested, demonstrated and developed wired and wireless control systems for managing energy consumption of plug load devices in residential and commercial settings.

# **PROJECTS**

#### **MICROMOUSE**

Jan 2018 - Present | Irvine, CA

- Designed a small robotic mouse that autonomously solves a 16'x16' maze with a team of 3 using software concepts such as PID Control, PWM, and path-finding algorithms.
- Designed a modular 2 layer through-hole build to reduce size and optimize space.
- Took 3rd place in the IEEE Region 6, Southern Area Student Design Competition.

#### THALES PROJECT ARDUINO - SCOUT CAR

Oct 2017 - March 2018 | Irvine, CA

- Worked on a team of 4 to create a prototype remote-controlled scout car that uses an Arduino Uno, eye-tracking software and additional modules.
- Specifically created and designed circuit schematics to support multiple components.
- This project was a semi-finalist in a University-wide competition hosted by Thales.

# ADDITIONAL EXPERIENCE

## **UCI SCHOOL OF ENGINEERING - DEAN'S OFFICE**

#### LEAD STUDENT ASSISTANT

July 2017 - Present | Irvine, CA

- Work on data heavy projects using Microsoft Excel/VBA that require a meticulous attention to detail while assisting the office manager in day-to-day tasks as needed.
- Required to manage and train new student assistants.

#### **EECS DEPT. - NETWORK ANALYSIS II**

## **UNDERGRADUATE TUTOR**

March 2017 - Present | Irvine, CA

- Tutored Electrical and Computer Engineering students in a Network Analysis course focused on Op Amps and first/second order linear RLC circuits.
- Responsible for hosting and grading weekly quizzes for 50+ students.

## **ENGINEERING STUDENT COUNCIL - EMF**

#### STUDENT MENTOR

September 2017 - March 2018 | Irvine, CA

• Part of a mentoring program, "Engineers Mentoring the Future" which is aimed at helping first-year engineering students in academics and community involvement.

# **FDUCATION**

# UNIVERSITY OF CALIFORNIA, IRVINE

BS IN COMPUTER ENGINEERING

Expected June 2019 | Irvine, CA

Cum. GPA: 3.283 Dean's List:

- Fall/Winter 2015-2016
- Winter 2018

## COURSEWORK

#### **UNDERGRADUATE**

- Electronics I/II
- Programming in C
- Computer Networks
- Digital Signal Processing
- Object-Oriented Programming
- Data Structures and Algorithms
- Electronics and Network Analysis
- Introduction to Data Management
- Organization of Digital Computers

# SKILLS

#### **PROGRAMMING**

- Java C/C++ Python
- SystemVerilog SQL
- Mathematica MySQL

#### SOFTWARE/PLATFORMS

- Eclipse OrCAD Capture
- Git EAGLE PSpice

#### **HARDWARE**

- Arduino
- Teensy32
- ESP-WROOM-32
- ESP8266

## **FAMILIAR**

- Linux HTML/CSS
- Javascript MQTT Assembly
- I2C SPI UART MATLAB

# **AFFILIATIONS**

• Alpha Phi Omega -

(National Service Fraternity)

•ACM@UCI-

Association for Computing Machinery

IFFF/Micromouse