Justin Le

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EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE
BS in Computer Engineering
Expected June 2019 | Irvine, CA

COURSEWORK

Programming in C
Object-Oriented Programming
Data Structures and Algorithms
Introduction to Data Management
Discrete-Time Signals and Systems
Organization of Digital Computers
Electronics I/II
Electronics and Network Analysis

SKILLS

PROGRAMMING
Java • C • Python • SystemVerilog
Mathematica • SQL

SOFTWARE/PLATFORMS
Eclipse • OrCAD Capture• Git
EAGLE • PSpice

HARDWARE
Arduino/ATMega328p• Teensy32
ESP-WROOM 32

FAMILIAR
LaTeX • Linux • HTML/CSS
Javascript• MQTT•Assembly

AFFILIATIONS

Alpha Phi Omega -
(National Service Fraternity)
ACM@UCI
IEEE/Micromouse@UCI

RESEARCH

CALIFORNIA PLUG LOAD RESEARCH CENTER
Undergraduate Researcher
Jan 2018 – Present | Irvine, CA
- Test, demonstrate and develop wired and wireless control systems for managing energy consumption of plug load devices in residential and commercial settings.
- Working on implementation of an ESP-WROOM 32 embedded system that uses RTOS, I2C and SPI protocols.
- Using/learning EAGLE to create PCB schematics for appointed projects.
- Researching MQTT protocols to implement client interfaces using Python/eclipse.

PROJECTS

THALES PROJECT ARDUINO - SCOUT CAR
Oct 2017 – Present | Irvine, CA
- Worked on a team of 4 to create a scout car that uses an Arduino Uno/ATMega328p, distance sensor, Bluetooth module, L298n motor driver, pan-tilt servos, and eye-tracking software.
- Specifically created and designed circuit schematics to utilize multiple modules.
- Helped create a Python script to convert and send Tobi EyeX gaze data to the Scout Car via the HC-05 Bluetooth module.

MICROMOUSE
Jan 2018 – Present | Irvine, CA
- Currently in the process of solo designing/building a small robotic mouse that autonomously solves a 16'x16' maze.
- Using a Teensy32, a half bridge motor driver and IR emitters and receivers to control movement of the robot.
- Embedded software design in progress to utilize a flood fill algorithm.

ADDITIONAL EXPERIENCE

UCI SCHOOL OF ENGINEERING - DEAN'S OFFICE
Lead Student Assistant
July 2017 – Present | Irvine, CA
- Work on data heavy projects that require a meticulous attention to detail.
- Worked closely with executive members of the University of California, Irvine.
- Required to manage and train new student assistants .

ENGINEERING STUDENT COUNCIL - EMF
Student Mentor
September 2017 – Present | Irvine, CA
Part of a mentoring program, "Engineers Mentoring the Future", that pairs mentors with first/second year engineering students in order to help them both in academics and community involvement.