# **Justin Chang**

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**Education:** 

University of California, Los Angeles: Bachelors Electrical Engineering June 2020 College GPA: 3.85

**Experience:** 

High School Math and Physics **Tutor**: helped 100+ students October 2015-June 2016

Car Insurance Ads **Research Assistant**:

January 2017-April 2017

-tracked consumer behavior over years and company behavior. (paid job)

Spinal Cord Injury **Research**:

**April 2017-Present** 

-Raspberry Pi 3, Arduino gpio and small assignments in a team focusing on developing procedures for rehabilitating patients with spinal cord injury.

#### Other Computer Relevant Skills/Interests:

Attended LA Hacks:

March 2017

-worked on javascript, html, and created personal website <a href="http://termular.me/">http://termular.me/</a>
Attended Cal Hacks:

November 2016

-learned swift programming and created a few simple iOS aps (on github)

#### **UCLA IEE (OPS/Micromouse)**

**September 2016-Present** 

- -basics of EECS, hardware components and connection to microcontrollers, soldering, EAGLE CAD PCB design
- -worked on a micromouse maze traversing robot using IR sensors, arduino (C programming), and L239D h bridge. Link to project in personal website. **CS32**
- Functions, Pointers, Classes, Recursion, Data Structures (Arrays, Linked List, BST, Hash Tables, Heaps), STLs (Queues, Stacks, Vector (dynamically reallocated array), List) Inheritance/Polymorphism, basic Algorithmic Complexity **EE96C**
- -Intel Edison basics, HTTP protocol, SSH, mounting on Grove Shield for GPIO, setting up basic client server interactions, etc
- -Final Project focused on machine learning and using 9 DOF (Degrees of Freedom) sensor, with FANN (Fast artificial neural network) API to classify 3 types of motions. Link to project can be found in my personal website.

EE3 (project and report description on my website as well)

- -Voltage Divider/Load, basic EE concepts (impedance, circuit analysis, OP AMPS)
- -worked on a Final Project that used a car (Arduino controller) staying on top of a track (IR Sensors for electric tape), with halls effects sensor to detect magnets. **Leadership:**

## Vice President of Mu Alpha Theta Math Club

June 2015-June 2016

-AMC math contest, Log competitions, and Rocket City Math League competitions

### **Volunteer Experience:**

Circle K International UCLA

October 2016-Present

**Achievements:** 

Taiwanese American Scholarship Fund McKinley Scholarship June 2016

May 2016