

# OLIVER GOCH

Electrical Engineering | University of California, Los Angeles | June 2020

Cumulative GPA: 3.2 | Major GPA: 3.8

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## Work Experience

**UCLA Extension | Los Angeles, CA**  
**IT Support Assistant** (Present)

I am working with other members of the IT department to manage and set up the systems of UCLA Extension.

We are using a new, open source software to maintain inventory.

I have written scripts in Bash and Python to assist in the sorting and ordering of the massive amounts of equipment.

## Relevant Courses

- Data Structures
- Computer Architecture
- Circuit Theory
- Digital Design
- Computer Logic
- Software Construction
- Algorithms and Complexity
- Principles of Operating Systems
- Systems and Signals

## Skills

- C/C++
- Linux/Unix
- Microsoft Suite
- Soldering
- Arduino
- Bash
- Python
- Analog Circuit Design
- Matlab

## Personal Projects

### Line Following Robot (2017)

- This line following robot used an Arduino Nano which we programed in C
- It has three IR sensors which it used to navigate.
- It also had two DC motors which we controlled with NPN transistors

### BruinNav (2017)

- A navigational program that I programmed in C++
- I used A\* algorithm to find shortest route
- I used various data structures in implementation ranging from Binary Search Trees to arrays

### Bugs (2017)

- A simulation/game that I programmed in C++
- The simulation was of ant colonies competing with each other and enemy grasshoppers
- I used polymorphism, encapsulation, and other techniques in building this project

### Hangman Game (2016)

- I developed this C++ game taking inspiration from a project in class
- The game using text to play and interact
- Users can interact with the keyboard to play the game

## Leadership

### Bruin Racing – Electric Vehicle Social Director (2017-Present)

- I organize social events for the Bruin Racing and the Electric Vehicle teams
- I am teaching new members basics of Electrical Engineering and organizing projects for them to complete

### Bruin Racing – Power & Wiring (Present)

- In addition to my regular duties, I am assisting the power & wiring team with construction of the car
- In my work with them I have constructed circuits with relays, buck converters, sensors, and much more