

## University of California, Berkeley Electrical Eng. Computer Science

Freshman, Expected Graduation: 2018  
*Leadership Scholar* GPA: 3.7

### Courses by Summer 2015:

- CS61A: Structure, Interpretation of Computer Programs
- CS61B: Data Structures, Advanced Programming
- CS70: Discrete Math and Probability
- EE16A, EE16B: Designing Devices, Info Systems
- EE: Digital Logic Design, Computer Organization

## Technical Skills

### Proficient

- Swift/ Obj. C
- Python

### Frequently Used

- Java
- JS, SQL, Lisp

### Other

- Algorithms, Design
- Hardware (Arduino)

## Experience

### Berkeley Mobile iOS

9/15 - Present

*iOS Developer - Objective C*

- Part of team that built and improves Berkeley's campus application with over **5,000 users**
- **My Impact:** Redesigned navigation to include a more efficient tab-bar-centric design, added customizable start, stop, and time destination mapping for Berkeley Public Transit, made routes calculate instantly and dynamically to make the process much faster.

### CS61A Lab Teaching Assistant: Structure and Interpretation Programs

1/16 - Present

### Berkeley HyperLoop Team

9/15 - Present

*Signals and Controls Engineer*

- Goal: Create safety-centered system computer for Berkeley's SpaceX's supersonic vacuum travel pod, Program Raspberry Pi to interface with Keyence sensors to keep pod balanced and cancel out vibrations, and minimize power consumption.
- **My Impact So Far:** CAD-ed (Computer Aided Design) seats and interior components to exemplify a practical safety first approach that qualified team Top 22 Internationally for competition test track testing in June 2016.

### UNT Dept. Materials Science Research

1/14 - 6/15

*Student Research Assistant*

- Developed model that can make any metal 30% lighter without losing strength to prevent bone implants from stress-shielding. Used LAMMPS, UNIX scripts: nano-porous copper with niobium.
- **My Impact:** Led project, validated this model through 1.5 years of computational simulations, synthesized a real-life Zinc-Oxide model, presented discoveries as an **Intel ISEF Finalist**

## Projects

### Casa

Present

- Fully built and tested Swift App that lets users rent out different portions of their house
- Challenges included algorithms to maintain security with renter's availability, faster search, and messaging

### SpeedUp

10/15

*CalHacks 2.0*

- Haptic Feedback to shoes if you're running late to class using Arduino w/Bluetooth LE, Swift iOS App, Here Maps, Apple Mapkit, real-time distance + pace calculation

### Alleviate

3/15

*HackDFW Most Technologically Innovative Award*

- JS WebApp uses Leap Motion IR Sensor, notifies you of incorrect hand position, finger extension to prevent tendonitis.

### Dyslexia Reader Chrome

6/14

*Non-Profit Project - 1000 Active Users*

- Dyslexia Reader Chrome Extension changes font-spacing, size, colors and other CSS attributes based on previous research to help Dyslexic Individuals Read.