# Ayush Maganahalli

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## EDUCATION

**UC BERKELEY**
B.S. Electrical Engineering and Computer Science
Expected May 2020 | Berkeley, CA

## COURSEWORK

**UNDERGRADUATE**

**CS61A:** Structure and Interpretation of Computer Programming
**CS61B:** Data Structures
**CS61C:** Machine Structures
**CS70:** Discrete Mathematics and Probability Theory
**CS160:** User Interface and Design
**CS161:** Computer Security
**CS162:** Operating Systems
**CS170:** Efficient Algorithms and Intractable Problems
**CS188:** Introduction to AI
**CS195:** Social Implications of Computing
**EE16A/B:** Designing Information Systems I/II
***CS189:** Machine Learning*
***CSC100:** Principles of Data Science*

## SKILLS

**TECHNICAL**
Python • Java • JS • C • Spark • Go
HTML/CSS • Django/Bootstrap • Git

## LINKS

Github: https://github.com/ayushsm
LinkedIn: https://www.linkedin.com/in/ayush-maganahalli/

## LEADERSHIP

2018-'19 Cal Badminton President
2018-'19 EthiCAL Marketing Dept.
2018-'19 BMES Corporate Committee
2015-'16 DVHS LD Debate Captain
2007-'16 FLL/VEX Robotics Captain

## WORK EXPERIENCE

**CS 61C UNDERGRAD TEACHING ASSISTANT** | CS uGSI TA
Summer 2018 - Current | San Ramon, CA
- 8 hour per week student instructor with 2-hour labs and office hour tutoring
- Taught Berkeley students about data structures and machine architecture

**UC DAVIS |** Research Assistant and Software Development Intern
June 2015 – August 2015 | Davis, CA
- Led research and data analysis on fruit cracking and its causes
- Hypothesized potential solutions; to be tested by the Dept. of Pomology
- Programmed using SAS, imageJ, C, and Python to create macros/scripts

**STANFORD SCHOOL OF MEDICINE** | Software Development Assistant
May 2014 – August 2014 | Pleasanton, CA
- Worked with medical professionals on combining robotic surgery and telecommunications
- Attempted to solve for latency, transportation, and ease of interfaces
- Collaborated with telecom companies for feasibility of models on long-distance robotic surgery

## PROJECTS

**RECEIPT READER** | Computer Vision and Regex
Nov 2018 – Current
- Used Google Vision to scan receipts to make JSON strings of receipt
- Parsed string with Python and prompted the user for input to verify info
- Computed total pricing/price per input and input to database for later use

**AUTOMATED JOB SEARCH** | APIs and Database Management
Oct 2018 – Current
- Create databases via web-scraping for storage of jobs for users to access
- Construct APIs for users to easily interact with utilities

**EDUCARBON** | Children's Climate Change Education
July 2018 – Current
- Interactive website teaching children of the effects of climate change
- Built with Python, Django/Bootstrap, HTML/CSS, and Javascript

**GITLET** | Miniature Version-Control Systems
May 2016 – Aug 2016
- Constructed in Java, using Java's collections objects
- Allows adds, commits, removes, and resets while logging all commits
- Supports branching, merging, checking out, and detects merge conflicts

## AWARDS

| Year | Level | Award |
|---|---|---|
| 2015/16 | National | Distinguished Honor Roll (top 1%) American Mathematics Competition 10/12 |
| 2016 | National | 5th - World Schools National Debate Tournament |
| 2016 | State | 5th - Policy California State Debate Tournament |
| 2015 | International | 22nd Overall - World Championships |
| 2013 | International | 3rd Project/22nd Overall - FLL Legoland Internationals |