

# Alan Zhang

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## EDUCATION

### University of California, Berkeley

B.A. in Computer Science, Minor in Linguistics

Expected Graduation: May 2019

GPA: 3.2

Courses: Computer Security (ongoing), Natural Language Processing (ongoing), Operating Systems, Computer Architecture, Networking Architecture, Algorithms, Data Structures, Machine Architecture, Advanced Linear Algebra, Discrete Math & Probability, Teaching CS

## EXPERIENCE

### Cisco Meraki

*Software Engineer Intern*

San Francisco, CA

May 2018 - August 2018

- Added AES-256 support to the Meraki Cryptography API for user and kernel level operations.
- Updated the MX security appliance's Auto VPN feature to use and negotiate AES-256.
- Improved security in thousands of enterprise network deployments worldwide.

### Berkeley Emergent Space Tensegrities Lab

*Undergraduate Researcher*

Berkeley, CA

May 2017 - Present

- Research a new design of space robots based off a 6-bar tensegrity structure.
- Implement a demuxer for wireless signals coming from a complex camera-system payload.
- Redesigned an extensive software stack and communication protocol for robots.
- Created a flexible and stable API for developing and testing automatic-rolling algorithms.
- Provide direction and standardized engineering practices for future software development.

### Pioneers in Engineering (PiE)

*Advisor*

Berkeley, CA

May 2018 - Present

- Lead a student-run engineering outreach 501(c)(3) that develops skills through a hands-on realistic engineering experience.

*Director of Programs*

June 2017 - May 2018

- Communicated with and analyzed the needs of 20+ schools and teachers, and 300+ students.
  - Used new knowledge to iteratively reshape the focus of the events PiE hosts.
  - Revamped holistic and engaging STEM programs, including the flagship Robotics Competition held every Spring for under-served Bay Area high schools.
- Solidified PiE's Fall Competition as an annual event and laid foundation for year-round workshops in order to increase continuous engagement with our community.

*Robotics Competition Project Manager*

August 2016 - May 2017

- Managed a team to design a game and a modular field used in the PiE Robotics Competition.
- Organized and lead 50+ staff to host public Robotics Competition and STEM educational events.

### UC Berkeley EE 16A Course Staff

*Lab TA*

Berkeley, CA

January 2018 - Present

- Teach and facilitate two lab sections of 50 students each, per week.
- Construct and test course material for 1,000+ students to ensure quality and continuity.

## SKILLS

**Languages** Python, C/C++, Java **Web** HTML/CSS

**Misc** Arduino, Git, Unix systems, Design and Prototyping

**Interests** Computer Architecture, Systems Engineering, STEM Education and Diversity

**Activities** Cal Ultimate, Running, Mentoring for Computer Science Mentors (CSM)