Alan Zhang

alanszhang@berkeley.edu— (510) 604 0566 — alanszhang.com — github.com/alanszhang

EDUCATION

University of California, Berkeley Expected Graduation: May 2019
B.A. in Computer Science GPA: 3.2

Courses: Networking Architecture and Protocols (ongoing), Algorithms, Data Structures, Machine Architecture, Advanced Linear Algebra, Discrete Math & Probability, Teaching CS (ongoing)

EXPERIENCE

Berkeley Emergent Space Tensegrities Lab / Undergraduate Researcher May 2017 - Present

- Research a new design of space robots based off tensegrity structures.
- Direct and lead software engineering for a small group of engineers.
- Redesign and maintain an extensive software stack and communication protocol for robots.
- Created a flexible and stable API for developing and testing automatic-rolling algorithms.
- Designed user interfaces for robot testing and for demonstrations of punctuated rolling.
- Continually increase packet send/receive rates with current improvements of a 5 times speed up

Pioneers in Engineering (PiE) / Director of Programs August 2015 - Present

- Lead a student-run engineering outreach 501(c)(3) that develops skills through a hands-on realistic engineering experience.
- Communicate with and analyze the needs of the 20+ schools and teachers, and 300+ students.
  - Use new knowledge to iteratively reshape the focus of the events PiE hosts.
  - Revamp holistic and engaging STEM programs including the flagship Robotics Competition.
- Manage a team to design, create, and build a game and modular field for the PiE Robotics Competition hosted on UC Berkeley campus 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.
- Other/Former roles: Project Manager (June 2016-Present), Event Coordinator (June 2016-Present), Game Designer (August 2015-Present), Game Referee (Feburary 2016-Present)

Mango Materials / Laboratory Intern June 2013 - August 2016

- Worked on creating a renewable and sustainable plastic-substitute with methanotrophic bacteria.
- Performed original biology experiments to optimize bacteria growth in fermentation reactors.

PROJECTS

Laminar / Cal Hacks 3.0 October 2016

- Web application for connecting writers to inspire each other and overcome writer's block.
- Designed an interface where users could submit their own snippets of text (to be shared with others) and also view other users' submissions.
- Utilized HTML, CSS, Django, Microsoft Cognitive Services API.

SKILLS

Languages Python, Java, C/C++ **Web** HTML/CSS
Misc Arduino, Git, Design and Prototyping (experience in maker spaces and machine shops)
Interests Computer Architecture, System Engineering, Inclusivity and Diversity, STEM Education
Activities Cal Ultimate, Running, Mentoring for Computer Science Mentors