

# Kerrie Wu

wukerrie [at] gmail [dot] com | <http://kerriewu.github.io#portfolio>

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## EDUCATION

### Massachusetts Institute of Technology

B.S. Engineering w/ concentration in Control, Instrumentation, & Robotics, GPA: 4.9/5.0

Cambridge, MA

Jun 2018

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## PROFESSIONAL EXPERIENCE

### Waymo

Systems Engineer

- Self-driving car performance analyses.
- Vehicle dynamics model verification.

Mountain View, CA

Sept 2020-present

Systems Test Engineer

Nov 2018-Sept 2020

- Test automation, coordination, and execution for ensuring safety and performance of self-driving vehicles.

### MIT CSAIL

Undergraduate Research Assistant

Cambridge, MA

Feb-May 2018

- Build an annotated roadgraph in Python for self-driving car simulation to demonstrate road rules compliance.

### Cruise Automation

Controls Software Engineering Intern

San Francisco, CA

Jun-Aug 2017

- Prototyped algorithms for improving control performance. Wrote bulk data processing scripts for self-driving cars.

### NASA Jet Propulsion Lab

Summer Intern

Pasadena, CA

Jun-Aug 2016

- Designed, built, operated an automated imaging testbed for evaluating an image registration algorithm's performance for the Mars 2020 Rover, collecting more than 1600 images. Analyzed algorithm performance using the dataset.
- Authored abstract for submission to International Workshop on Instrumentation for Planetary Missions. ([link](#))

### MIT Little Devices Lab

Undergraduate Research Assistant

Cambridge, MA

Oct 2015-Jan 2016

- Designed and programmed a do-it-yourself usage-tracking/alarm pill bottle construction set.
- Taught youth in a New York City STEM outreach program how to build the DIY pill bottle at a workshop.

### Harvard Biodesign Lab

Undergraduate Research Intern

Cambridge, MA

Jun-Aug 2015

- Implemented and evaluated accuracy of an algorithm for calculating human rehabilitation-relevant gait parameters from inertial measurement units, compared to motion capture data.

### Sandia National Laboratories

Research Intern

Livermore, CA

Apr 2013-Jul 2014

- Contributed to research utilizing microfluidic devices to investigate protein behavior at nanoconstrictions.
  - Research was published in ACS Applied Materials and Interfaces. ([link](#))
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## LEADERSHIP and COMMUNITY

### Boston Cares: Serviceworks Volunteer

March 2017

- Volunteered with Boston Cares: Serviceworks to run outreach activities with Boston public high school students as part of MIT's Alternative Spring Break program.

### MIT Dorm Freshman Orientation Week Co-Chair

Feb-Sept 2016

- Supported dozens of events and several large construction projects for my dorm's freshman welcome week, including \$20k+ budget, in a team of three students.
- Acted as liaison between offices (such as MIT EHS, Professional Engineer, City of Cambridge) and student design teams for construction projects such as a three-story tall wood structure, a swing carousel ride, and more.

### Construction Project Lead

Jun 2015-Sept 2017

- Coordinated construction and operation of various wood construction projects, such as a rollercoaster, for freshmen welcome weeks and prospective student weekends in teams of undergraduate students. Involved freshmen and prospective students in construction, ensured safety.

### ESP Summer High School Studies Program (HSSP) Co-Director

May-Aug 2015

- Recruited/interviewed teachers, coordinated student registration, and managed logistics for annual six-weekend summer program, serving over 800 middle and high school students from the local Boston Area.
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## SKILLS

Python, SQL, C++, SolidWorks, rapid prototyping