

# Mindy Tieu

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Portfolio: mintyish.github.io

## EDUCATION

### Olin College of Engineering, Needham MA

*Bachelor of Science, Mechanical Engineering*

May 2017

GPA 3.5

- Courses: Mechanical Dynamics, Thermodynamics, User Oriented Collaborative Design, Mechanical Design.

### Sophia University, Tokyo, Japan

*Study Abroad Semester, September 2015 - January 2016.*

- American Association of Teachers of Japanese Bridging Scholarship Recipient 2015.

## EXPERIENCE

### Amazon Robotics Senior Capstone Project

Needham, MA

*Student Researcher*

Sep 2016 - Present

- Member of 6-person team of seniors working on year-long project sponsored by Amazon Robotics.
- Design and build integrated software and mechanical system to robustly pick and place variable objects for warehouse setting.
- Designed and prototyped electro-mechanical subsystems for variable object handling.

### Superpedestrian

Cambridge, MA

*Mechanical Engineering Intern*

May 2016 - Aug 2016

- Designed, executed, and documented mechanical design validation plan for full product assembly before ship to customers.
- Investigated new grease application method and did system level analysis of sound pressure and drag forces in final product.
- Designed and fabricated structures for mechanical tests in extreme environmental conditions and representative dynamic forces.

### Olin College of Engineering

Needham, MA

*Course Assistant*

Jun 2015 - Aug 2015

- Guided students through mechanical design processes, CAD modeling, and rapid prototyping in Design Nature course.
- Tutored students in mechanical dynamics and assisted professors in course design in Quantitative Engineering Analysis course.

### Biomedical Materials Research Engineer

Jun 2015 - Aug 2015

- Conducted finite element analysis for validation of new orthodontic pacifier designs accounting for nonlinear and dynamic elements.

### Mechanical Design Research Engineer

Jun 2015 - Aug 2015

- Designed, fabricated, and tested gravity actuated perching landing gear for implementation on unmanned aerial vehicles.

### Olin Intelligent Vehicles Lab

Needham, MA

*Autonomous Drones for Whale Research Engineer*

Sep 2014 - Dec 2014

- Implemented autonomous quad-copter drones in whale research project "Snot Bot" with Ocean Alliance.
- Field tested and acquired data from drone and whale simulations in which drone hovers over whale to collect blow sample.

### Robot X Research Engineer

Jan 2014 - May 2014

- Designed and fabricated sensor mounts on Robot X, an intelligent maritime vehicle shared by Olin and MIT.
- Developed advanced composite fabrication skills for marine applications through CAD modeling and machine shop use.

## PRESENTATIONS AND PUBLICATIONS

### Autonomous Aerial Vehicles for Remote Sample Collection in Difficult Conditions

- Paper published to IEEE International Conference on Technologies for Practical Robot Applications, 11-12 May 2015, Woburn, MA.
- Poster presented at Northeast Robotics Colloquium, 11 Sept 2014, Brown University, RI.

### Demonstrations of Bio-Inspired Perching Landing Gear for UAVs

- Paper published to SPIE Smart Materials Conference on Bioinspiration, Biomimetics, and Bioreplication VI in Nevada March 2016.

## SKILLS

**Experienced in:** SolidWorks, SolidCAM, FEA, MATLAB, LabVIEW, HTML, CSS, LaTeX, Photoshop, InDesign

**Trained on:** Manual/CNC Mill, Lathe, Laser Cutter, Composites, MakerBot Replicator 2x, Stratasys, Environmental Chambers

**Interests:** Videogames, running, fencing, costume design and fabrication

**Foreign Language:** Cantonese, Japanese, Russian