

Mindy Tieu

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EDUCATION

Olin College of Engineering, Needham MA

Bachelor of Science, Mechanical Engineering

May 2017

GPA 3.54

- 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.
- Designing and building integrated software and mechanical system to robustly pick and place variable objects for warehouse setting.
- Designing and prototyping 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.

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 Languages: Cantonese, Japanese, Russian