Mindy Tieu

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EDUCATION

Olin College of Engineering, Needham MA — *May 2017*
Bachelor of Science, Mechanical Engineering — *GPA 3.54*
- Courses: Dynamics, Thermodynamics, User Oriented Collaborative Design, Mechanical Design, Biomedical Device Design.

Sophia University, Tokyo, Japan — *Sep 2015 - Jan 2016*
Study Abroad Semester, Concentration in Japanese Language and Culture
- American Association of Teachers of Japanese Bridging Scholarship Recipient 2015.

EXPERIENCE

Amazon Robotics — Needham, MA
Senior Capstone — *Sep 2016 - Present*
- Member of 6-person team of seniors working on year-long proof of concept project sponsored by Amazon Robotics.
- Designing and building pick and place system to robustly sense and manipulate variable objects in warehouse setting.

Massachusetts General Hospital — Boston, MA
Student Researcher — *Mar 2017- Present*
- Designing and prototyping low cost imaging system for early detection and diagnosis of sepsis by physicians at MGH.
- Configuring system requirements for microscopy of human neutrophil migration patterns using microfluidic device.

Superpedestrian — Cambridge, MA
Mechanical Engineering Intern — *May 2016 - Aug 2016*
- Architected, executed, and documented mechanical design validation plan for full product assembly before ship to customers.
- Investigated grease application method and did system level analysis of sound pressure and drag forces in final product.
- Designed and fabricated test structures for extreme environmental conditions and representative dynamic forces.

Olin College of Engineering — Needham, MA
Course Assistant — *Sep 2015 - Dec 2016*
- Guided students through mechanical design processes, CAD modeling, and rapid prototyping for Design Nature course.
- Tutored students in mechanical dynamics and assisted professors in course design for Quantitative Engineering Analysis course.

Biomedical Research Engineer — *Jun 2015 - Aug 2015*
- Conducted FEA for validation of orthodontic pacifier designs accounting for nonlinear properties 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 interaction simulations.

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, Biomemetics, 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, CNC Router, Lathe, Laser Cutter, Composites, 3D Printers, Basic Machine Shop Operations
Interests: Videogames, running, fencing, costume design and fabrication
Languages: Cantonese, Japanese, Russian