

# Yufeng (Eric) Wu

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<https://ericuyufengwu.github.io/>

## Education

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### Tufts University – Medford, MA

Bachelor of Science in Mechanical Engineering with a minor in Studio Art

May 2021

Relevant Courses: Intro to Robotics & Mechatronics, Machine Design, Machine Design & Fabrication, Intro to Computer Science.

GPA: 3.83, Fall 2018 Dean's List

## Skills

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**Fabrication:** Laser-cutting, 3D printing, CNC milling, machine shop tools, soldering, woodworking.

**Programming:** Arduino, Python, LabVIEW, C++, HTML, CSS, JavaScript.

**Software:** Solidworks, KiCAD, Rhino, Microsoft Azure, Slack, Adobe Illustrator, Adobe Photoshop.

**Language:** Mandarin (Native).

## Projects

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**Ceramics 3D printer:** Re-designed and built the printer's structure based on a tutorial and configured the printer firmware.

**Silicone 3D printer:** Built and improved an open-source silicone extruder for printing soft robot actuators.

**Micro-controllers board:** A modular system that enables programming 10 micro-controllers simultaneously with 1 USB.

**Web-controlled hexapod robot:** Built 4 six-legged walking robots from scratch, including main structures, PCB, and Arduino code.

**IoT Robot Arm Fleet:** Designed and built a fleet of web-controlled robot arms during a Make-a-Thon at Harvard.

**Pac-bot:** Designed and built the hardware of a compact, autonomous robot for the Harvard Pacbot Competition.

**Laser Reflection Sculpture:** A motorized platform that projects a laser beam into phenomenal light patterns.

## Experience

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### Tufts University Center for Engineering Education and Outreach, LEGO Developer, Summer Intern

Nov. 2017 - Present

- Design and prototype adapters and printed circuit boards that combine LEGO SPIKE Prime and 3<sup>rd</sup>-party devices.
- Designed a universal hardware plug-in system for communication between LEGO SPIKE Prime products and other devices. The system was then used by 10 other LEGO developers for software testing, learning experience design, and more backpacks design.
- Develop projects and teaching experiences that combine LEGO with other materials. Designed an educational pulley system with 3D-printed, LEGO-compatible parts using the Form 2 3D printer.

### Tufts University Nolop FAST Facility, Fabrication Specialist

Jan. 2019 - Present

- Support incoming faculty and students through their brainstorm, design, and fabrication process.
- Lead workshops in CAD modeling, PCB design, and advanced laser-cutting techniques.
- Maintain makerspace machines and tools.

### Tufts University Soft Robotics Exosuit Research Project, Hardware Team Lead, Member

Jan. 2019 - Present

- Manage hardware team project development through Microsoft Azure Platform. Coordinates with Faculty Advisors regarding project status and future directions.
- Train new members on silicone casting, mold designs, and other skills related to the project.
- Built a silicone 3D printer for prototyping soft actuators. Adapted and improved an existing design from Soft Robotics Toolkit.
- Built a fluidic control board to control air flow from an air compressor to soft actuators.

### Tufts University Robotics Club, Treasurer, Project Leader

Sept. 2017 - Present

- Performed rapid prototyping and fabricated the main structure of a robot for the 2018 Trinity College International Robot Contest using Onshape and Adobe Illustrator.
- Lead the chassis design team for the 2019 Trinity Robot Competition by managing project development process and guiding team members brainstorm and rapid prototype.

### Tufts University Autonomous Intelligent Robotics (AIR) lab, Undergraduate Researcher

Oct. 2018 – June 2019

- Designed and fabricated a robot head for a UR5 arm system using 3D printed parts.
- Designed the system in Solidworks and export to URDF files to aid simulations in Robot Operating System (ROS).

## Awards

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- 3<sup>rd</sup> Place, 2019 Harvard Pacbot Competition.