

Wendy Wang

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EDUCATION

Massachusetts Institute of Technology – GPA: 4.7/5.0
B.S. in Mechanical Engineering, Robotics Concentration

Cambridge, MA
May 2021

RELEVANT EXPERIENCE

SharkNinja – Robot Vacuums

Mechatronics Engineer II
Mechatronics Engineer

Needham, MA
May 2024 - Present
May 2022-May 2024

- Led development of robot subsystem from low-fidelity prototypes to manufacturable solution, shipped Spring '24. Prototyped and tested 12 systems, adapted tests for product validation & spearheaded consumer insights. Drove component selections to reduce cost while maintaining performance.
- Led motor selection for various wet cleaning systems. Performed root cause analysis for motor burnout. Worked with overseas supplier and software team to increase motor life by 300% to meet product lifetime spec.
- Designed and developed cam mechanism, leading to 60% reduction in brushroll entanglement.
- Collaborated with cross-functional teams [ID, EE, PD] in the US, UK and China to deliver products.

The Deep Makerspace Mentor

Jun 2021-Present

- Mentored students in makerspace. Taught weekly CNC milling & waterjet trainings to undergraduate students.

International Fabric Machines [Stealth Startup]

Mechanical Engineer

Boston, MA
Jun 2021-May 2022

- Researched and developed wire-alignment system for chip processing. Modeled assembly with Solidworks, additively manufactured prototypes, wrote CAM, and fabricated using CNC milling. Automated manual process, reducing wire spooling time 20x, from 10 minutes to 30s.
- Built bench-top testing apparatus to test differences in material bond strength. Based on results, recommended wire type and process conditions.
- Trained and managed team of 2 manufacturing technicians. Maintained manufacturing documentation. Partnered with external suppliers to source plastic extrusions. Optimized process conditions, improved yield rate by 30%, and throughput by 400%.

MIT Roche Lab

Undergraduate Researcher

Cambridge, MA
Oct 2019 – Jun 2020

- Designed an orthodontic device to treat obstructive sleep apnea. Created protocol to scan impressions, model device, and manufacture using 3D printing.
- Pitched project to MIT Sandbox Fund, raising \$10k in funding. Participated in entrepreneurship workshops.

MIT Sea Grant

Undergraduate Researcher

Cambridge, MA
Jun 2018 – Aug 2018

- Developed low-cost multispectral camera system using microcontrollers to study vegetation health
- Designed and fabricated camera mount for drone using 3D-printing. Designed circuit to synchronize multiple Raspberry Pis, used computer vision tools to register and process different images.

SELECTED PROJECTS

Defensive Training Device – Explorations in Product Design

Fall 2020

Designed punching bag attachment to enable solo-defensive training. Designed soft enclosure and explored spring-actuation methods. Managed material procurement and \$6k budget. Chosen by team of 16 to co-present final product.

Redesigned Walker - MIT Assistive Tech Hackathon

Mar 2019 – Jan 2020

Designed walker for client w/ cerebral palsy, enabling independent movement. Won “Best Co-Designer Collaboration.”

SKILLS

Software – CAD (Creo, Solidworks, Fusion 360, PLM), Finite Element Analysis, Illustrator, LabVIEW, Python, MATLAB, SQL, Microsoft Office Suite (Word, Excel, Powerpoint), Moldflow

Fabrication – Rapid prototyping (3D printing, laser cutting), CNC, lathe, machine shop tools, Instron

Electronics – Soldering, C++, Microcontrollers, motor controllers, sensors, Arduino IDE, KICAD

Process – Design of Experiments (DOE), Design for Manufacturability/assembly (DFMEA)