

JENNIFER YEO

jenyeo@bu.edu • 650.534.5263 • Portfolio: jenyeo.github.io/

EDUCATION

Boston University | Boston, MA Dec 2024
Candidate for Master of Science in Mechanical Engineering, Concentration: Dynamics, Systems, and Controls GPA: 3.85
Activities: Mechanical Engineering Masters Ambassador

Northeastern University | Boston, MA May 2023
Bachelor of Science in Bioengineering, Concentration: Medical Devices; Minor: Mechanical Engineering GPA: 3.66
Honors and Awards: Dean's List (Fall 2019, Spring 2020, Spring 2021, Spring 2022)
Activities: Enabling Engineering 2022, BMES Club 2021 Mentor, College of Engineering 2021-2022 Peer Mentor

EXPERIENCE

Material Robotics Laboratory | Boston, MA Sept 2023 - Present
Graduate Student Researcher: Millimeter Scale Soft Robotic Bronchoscope

- Designed and machined alignment jig using a CNC Mill to improve accuracy and repeatability of manufacturing process
- Experimented with 5 materials used in biopsy tool deployment system (BTDS) manufacturing to determine optimal material selections, decreasing film production time from 11 hours to 8 minutes
- Modified BTDS design to add dexterity to tip of the robot by enabling steering capabilities
- Designed and executed benchtop testing such as bending characterizations, puncture force, and blocked force
- Created lung simulator for surgeons using Python and Panda3D to aid in localization of biopsy tool

Engineering Product Innovation Center (EPIC) | Boston, MA Jan 2024 - Present
Student Lab Assistant

- Trained students on machinery and equipment
- Managed 3D print jobs of SLA and FDM and maintained organization using Jira for project management

Abiomed, Inc | Danvers, MA July 2022 - Apr 2023
Co-op, Product Development: Cardiology

- Led designs and developed electro-mechanical and mechanical fixtures, including tests for cyclic bend, tensile, compression, off-axis tensile, for design verification of Impella right heart pump
- Executed tests, developed test methodologies, and communicated findings to team
- Managed and trained users for 3D printing space, including SLA and FDM printers
- Composed technical reports and engineering summaries on preliminary test results

MGH Martinos Center for Biomedical Imaging | Boston, MA Jan 2021 - May 2021; Jan 2022 - July 2022
Intern, Undergraduate Student Researcher

- Designed and fabricated visual stimulus goggles for ultra-high field (7 Tesla) MRI for high resolution studies of functional organization of visual cortex using SOLIDWORKS, Arduino, and EAGLE

Distal Solutions, Inc. | Westborough, MA July 2021 - Dec 2021
Co-op, Product Development Engineer

- Designed CAD models of fixtures for proprietary products for a thrombectomy startup
- Managed and fabricated designed fixtures for an air permeability test, pre-design verification force tests, simulated use, UV bonding, and press-fits utilizing 3D printing, UV curing boxes, and machine shop tools
- Generated CAD models and drawings using SOLIDWORKS sent for manufacturing
- Executed and analyzed tensile, compression, pressure, and leak testing on company products

SKILLS

Technological: SOLIDWORKS, OnShape, Fusion, MATLAB, Instron Testing, Arduino, Microsoft Office, HTML, CSS, Keyence, OMM, Javascript, Sketchup, Vectorworks, Mimics, Python, Linux Environment

Fabrication: Laser cutter, 3D printer (SLA and FDM), UV Curing, Soldering Iron, CNC and Manual Mill and Lathes, Bandsaw, Chop Saw, Laser Welder, Split Die Bonder, Hot Box, Drill Press, Table Saws