Maggie Driggs

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EDUCATION

Boston University, College of Engineering — Boston, MA
Bachelor of Science, Mechanical Engineering — May 2025
GPA: 3.82
Relevant course work: Structural Mechanics, CAD Drawing, Manufacturing Processes, Clean Energy, Quantum Physics, Programming for Engineers, Statistics, Thermodynamics, Electromechanical Design.

EXPERIENCE

Mechanical Engineering Intern — New York City, NY
Arup — May 2024 - Aug 2024

- Designed piping and ventilation systems, annotated floor plans, and provided technical feedback in Revit to adhere to energy codes and reduce carbon emissions in hospitals and museums.
- Determined pressure drops in AHUs, pipe sizes, flow rates, box sizes, and longest run of ventilation systems, leveraging ASHRAE Duct Database to ensure most efficient equipment was deployed.
- Assessed impact of corrosion on cooling towers and dampers in coastal environments; delivered recommendations for resilient material selection and minimizing maintenance costs.

Lab Assistant — Boston, MA
Engineering Product Innovation Center — Aug 2022 - Dec 2023

- Guided students on operating mills, lathes, laser cutters, and CNC machines, providing hands-on support for projects; led tours and taught classes to promote engagement with manufacturing resources.
- Oversaw 3D printing operations for personal, class, research, and club projects, catering for the needs of over 33,000 students. Employed FormLabs SLA, Maker Gear FDM, and Stratasys FDM printers.

Development Engineering Intern — Ogden, UT
Autoliv — May 2023 - Aug 2023

- Composed SCILab code to compute oxidant formula to optimize latent heat during combustion by 20%.
- Researched radiation effects on airbags through bi-weekly data logging and analysis using Python and SCILab to filter data. Organized research trip to Death Valley to study thermal gain of three vehicles.
- Examined data among three years of temperature measurements and presented trends to company.
- Researched properties of airbags, organized into a book, increasing company access to airbag studies.

Product Development Intern — Draper, UT
Ortho Development — May 2022 - Aug 2022

- Created a protocol for dimensioning the endplate anatomy of the cervical spine from 100 Japanese CT scans on Osirex focusing on disc space, calibrated machines, and tested the integrity of prosthetics.
- Performed a distributive analysis comparing findings to published morphological data, proposed research to doctors.

PROJECTS

Senior Design | Boston University — Sep 2024 - May 2025

- Collaborated with a team of 5 to design a two-axis tracking system with motors, gears, and a solar reflecting trough to improve energy capture through heating water in a piping system.
- Performed simulations in SolidWorks to model radiation heat transfer and fluid flow dynamics, achieving results within 10% of experimental data, validating the accuracy of data collection.
- Developed testing protocol and found a 50C increase in temperature in pipes, achieving residential water heating standards, with a 41W average heat transfer rate and 150kJ total energy capture in one hour.
- Fabricated system components by welding, CNC milling, turning, Arduino integration, and CAD modeling.

SKILLS

Mechanical: CNC Milling, Lathe, Milling, Water Jet, Laser Cutters, 3D Printing, Soldering.
Software: MATLAB, SCILab, Excel, OnShape, SOLIDWORKS, Word, Gibbscam, Revit, Bluebeam.