

Education

Northeastern University, Boston, MA May 2023
Candidate for a Bachelor of Science in Mechanical Engineering and a Minor in Spanish GPA: 3.90
Honors: University Honors Program, Dean's List
Relevant Coursework: Mechanical Engineering Design, Thermal System Analysis & Design, Fluid Mechanics, Control Systems, Computation & Design (with F.E.A.), Mechanics of Materials

Rockland High School, Rockland, MA June 2018

Skills

Fabrication: 3D printing (FDM, SLA), laser cutting, plastic molding/casting, general machine shop tools
Software: CAD (Solidworks, Onshape, Fusion 360, NX), Simulink, Ansys Mechanical, MATLAB, C++ (basic proficiency) and Python (basic proficiency)

Work Experience

NASA Jet Propulsion Laboratory - La Cañada Flintridge, California September 2022-Present

- Operated robotic arm testbed to evaluate active compliance program performance during peg-in-hole tasks
- Developed components incorporated into the testbed and arm itself to improve test fidelity
- Performed frame and actuator builds to establish additional robotic arm testbeds

Northeastern University Residential Assistant - Boston, MA January 2022-July 2022

- Fostered the development of relationships among 35 residents
- Counseled first year students on academic and personal questions and concerns

Mass General Brigham (PI: Giovanni Traverso) Biomedical Engineering Co-op - Boston, MA July 2021-July 2022

- Designed on and fabricated prototypes for multiple drug delivery and medical diagnostic devices using CAD software & additive and subtractive manufacturing techniques
- Managed day-to-day operations of a fabrication space for a lab of 50+ people
- Characterized materials and prototype performance via in-vitro diagnostics and Instron material testing system
- Optimized production of plastic molded device subcomponents, reducing lead time from 2 hours to 20 minutes

SharkNinja Hardware Quality Testing Engineer Co-op - Needham, MA July 2020-December 2020

- Advised and validated test protocol development and product design changes
- Identified mechanical performance failures and proposed solutions to resolve them
- Adapted urgent testing procedures to novel conditions in short periods of time

Northeastern University Desk Proctor - Boston, MA December 2018-February 2020

- Processed and monitored flow of residents into building
- Resolved resident security conflicts while maintaining resident satisfaction and security procedures

Academic Projects and Extracurriculars

NEU Mars Rover Team - Boston, MA September 2019-February 2020

- Designed & constructed a test board which simulated landing module interactions to test arm performance of mars rover at annual competition using AutoCAD, wood, and electrical components
- Devised 3D-printed antenna and camera mounts to enable visuals and secure communication between rover and base station using SolidWorks
- Remodeled lighting system and camera mount for life detection component of rover for better testing visibility

Cornerstone of Engineering Museum Exhibit - Boston, MA September 2019-December 2019

- Assembled a rotating hourglass mechanism using upcycled materials and Arduino servos
- Developed educational material about opioid epidemic and community to effectively inform K-8 students
- Programmed computer-integrated GUI using MATLAB for interactions between user and exhibit

NU TELLS - Boston, MA September 2019-December 2019

- Created curriculum to teach English language and literacy to ESL staff
- Communicated effectively across language and cultural barriers to form intercultural relationships