

Drake Elliott

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Education

Massachusetts Institute of Technology – GPA: 4.8/5.0

September 2022 - May 2026

B.S. in Mechanical Engineering

Cambridge, MA

Relevant Coursework

- Dynamics and Control II
- Electronics for Mechanical Systems
- Design and Manufacturing II
- Thermal-Fluids II
- Measurement and Instrumentation
- Mechanical Design
- Mechanics and Materials II
- Product Engineering

Experience

GentleCare

July - September 2025

Mechanical Engineering Intern

Somerville, MA

- Engineered and rapidly prototyped critical components for a soft robotics product specializing in patient transfer and repositioning to reduce required human labor and strain
- Led design discussions and made critical technical decisions for the company's flagship product based on core mechanical engineering principles and internal research and development
- Verified flagship product performance and showcased demonstrations for potential new investors and company partners

d'Arbeloff Robotics Lab

February 2024 - May 2025

Undergraduate Researcher

Cambridge, MA

- Contributed to the design, fabrication, and analysis of an exercise assistive robot to help the elderly and disabled with balancing and fall prevention as they perform daily physical exercises or rehabilitation movements
- Performed static and workspace analysis for the robotic linkage assembly to ensure functionality
- Instrumented the device with high-precision encoders and load cells to accurately measure end effector position and applied forces through a microcontroller
- Developed signal processing algorithm to filter noise and produce clear visual representations of collected data

The Red Laboratory

January - December 2023

Undergraduate Researcher

Cambridge, MA

- Designed and fabricated a working prototype of a cryogenic pump intended for space application and research by employing 3D design software and fabrication techniques
- Designed and fabricated a testing loop to accurately measure various parameters of the pump to optimize performance
- Addressed design challenges such as cavitation prevention and vapor phase minimization by leveraging existing literature

Publications

Spring Loaded Double Pantograph: A Robotic Mechanism for Safe Balance Training

August 2025

Ravi Tejwani, John Bell, Drake Elliott, Cameron Wright, Peter Wayne, Paolo Bonato, Harry Asada

Accepted and Presented at IEEE RO-MAN 2025, Eindhoven, Netherlands, *Kazuo Taniguchi Award Finalist*

Leadership / Extracurricular

Divison I Varsity Rowing

Fall 2022 - Present

Athlete & Team Captain

Massachusetts Institute of Technology

- Led a team of over 30 student-athletes by serving as primary communication between coaches and teammates, including discussions about goals and behavior expectations
- Mentored athletes and acclimated members to team culture by modeling standards for performance and professionalism
- Competed as a rower in a nationals and international-qualifying boat, and engaged in rigorous daily training year round

Gordon-MIT Engineering Leadership Program

Fall 2024 - Present

Gordon Engineering Leader

Massachusetts Institute of Technology

- Participating in selective development program focused on being an effective leader of industry engineering teams
- Actively practicing leadership, teamwork, and communication skills in an engineering context; complementing MIT's technical coursework

Technical Skills

Software: CAD (SolidWorks, Fusion 360), MATLAB, C++, Processing, Photoshop

Machine Shop: Mill, Lathe, CNC, CAM, Band Saw, Drill Press, Miter Saw, Table Saw, Soldering, 3D Printing, Sewing