Elias Bilal

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EDUCATION

Tufts University 2022 – 2026 Bachelor of Science Mechanical Engineering (BSME)

Major GPA (Mechanical Engineering): 3.00 / 4.00

Relevant courses: General Physics I, General Physics II, Applications in Engineering: Simple Robotics, Computation in Engineering, Calculus I, Calculus II, Differential Equations, Mechanics I, Materials and Manufacturing I, Elementary Modern Standard Arabic

The American University in Cairo 2024-2024 Non Degree Seeking Study Abroad Student

Relevant courses: Mechanics II Dynamics, Materials and Manufacturing II, Calculus III

EXPERIENCE

Consigli Construction, Cambridge, MA

Mechanical Engineering Intern

June 2024 - August 2024

· Coordinated mechanical, electrical and plumbing systems with owners, architects, and trades to restore the MIT East Campus Parallels.

·Gained experience with and advanced understanding of heating and cooling, electric power control and water distribution systems and their required methods of fabrication, installation and maintenance

Project Management Intern

May 2023 - August 2023

- · Worked closely with Project Engineers, MEP Managers, Architects, Owners, and Subcontractors to restore the Harvard Newell and Weld Boat Houses while obtaining knowledge and experience of construction operations and procedures
- · Responsible for project documentation, communication with subcontractors, and participation in project meetings
- · Earned OSHA 10 Certification

Tufts Sports Medicine, Medford, MA— Work Study

October 2022 - Present

 \cdot Accurately uploading student athlete paperwork onto the patient database

PROJECTS

Electric Scooter Project

- · Modeled and manufactured a functional electric scooter design with aluminum and steel to meet desired load specifications via SOLIDWORKS
- · Scooter components included an 800W DC motor, Altrax motor controller, braking mechanism and steering mechanism. The project was completed under a budget to create a functional product

Crossbow Project

- · Used Lego Spike Prime, Legos, and wood to create a functional website controlled crossbow that could aim and pop balloons
- · Was developed to entertain middle school age clients who tested the crossbow from their school location via zoom Machine Learning Lung Cancer Prediction Website
- · Coded a Python program which utilizes machine learning, medical patient data of lung cancer probabilities and user inputs to predict lung cancer risk.
- · Graphs correlations between different patient characteristics and cancer probability as characteristic level increases

EXTRA CURRICULARS / LEADERSHIP

National Society of Black Engineers (NSBE)

- Treasurer 2024-2025
- Underclassmen Representative 2023-2024

Tufts Football Team

Athlete and teammate

SKILLS

Languages & Programs: Python, SOLIDWORKS, JavaScript, HTML, MATLAB, CSS, Comsol Mechanical Engineering: 3D printing, Laser Cutting, PCB, Prototyping, Design, Injection Molding Graphics, Documentation, & Editing: Microsoft PowerPoint, Microsoft Excel