

Matthew Nizich

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Education

Boston University

Boston, Massachusetts

Bachelor of Science, Mechanical Engineering

May 2027

- Cumulative GPA: 3.73, Dean's List
- Recent Coursework: Differential Equations, Programming for ENG, CAD and Manufacturing Processes, Engineering Design, Engineering Mechanics

Projects

Robotic Arm, Personal Project

- Developed mechanical design using Solidworks and optimized for lightweight, high-strength materials
- Integrated five stepper motors and two servo motors for precise movement control
- Designed and 3D-printed custom gripper and structural components to pick up and carry 2 kg of weight

Rover Chassis, Boston University Mars Rover Club

- Designed and built chassis to travel 250 meters over rocky terrain and deliver soil samples to target
- Led technical crew of 3 to develop antenna system to receive signal 25 meters from controller station
- Refined inner support structure and streamlined material types to reduce weight by 43%

Automatic Pill Cutter, Engineering Design Class

- Prototyped a device to autonomously cut medicinal tablets across score line
- Implemented cutting subsystem capable of delivering 55 N of force and infrared sensor to detect hand movement then facilitate operation through device
- Collaborated with design team to improve machine output, maximizing power to 39.1 N/cm

Work Experience

Technology Innovation Scholars Program, Boston University – Inspiration Ambassador

Summer 2025

- Designed and delivered engineering workshops such as hands-on Arduino projects and Onshape 3D-CAD modeling to diverse student groups, aiming to spark curiosity and demystify engineering
- Facilitated engaging mini-engineering challenges aligned with real-world problem solving, enhancing participants' confidence and interest in STEM careers
- Collaborated with fellow engineering students to develop interactive lesson plans and prototype demonstration kits, ensuring workshops were both technically rigorous and engaging.

Personal Skills

- Laboratory: Lathe, NC Mill, Drill Press, Laser Cutter, Mechanical Testing
- Software: Python, Java, MATLAB, Onshape, SolidWorks, AutoCAD, Microsoft Office Suite

Activities

BU Mars Rover Club, member since September 2023

BU Rocket Propulsion Group, member since September 2024

Vice President of BU Kendo Team, member since September 2023