# 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: Fluid Mechanics, Programming for ENG, CAD, Manufacturing Processes, Thermodynamics, Mechanics of Materials

## Projects

**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 create antenna system to receive signal over 25 meters
- Refined inner support structure and streamlined material types to reduce weight by 43%

**Robotic Arm,** Personal Project

- Developed mechanical design using Solidworks and optimized for PLA printing
- Integrated five stepper motors and two servo motors for precise movement control
- Prototyped and 3D-printed custom gripper and structural components to pick up and carry 2 lbs of weight

**Automatic Pill Cutter,** Engineering Design Class

- Prototyped a device to autonomously cut medicinal tablets across score line with up to 55 N of force
- Implemented infrared sensor to detect hand movement and facilitate operation through device
- Collaborated with team of 4 to improve machine output, maximizing power to 39.1 N/cm

## Relevant Experience

**Innovation Scholars Program, BU – Inspiration Ambassador** Summer 2025

- Designed and delivered engineering workshops such as hands-on Arduino projects and Onshape 3D-CAD modeling to 15+ students
- Facilitated engineering challenges such as catapult design and soil moisture sensors, enhancing participants' confidence and interest in STEM careers
- Collaborated with 6 engineers to develop 4+ lesson plans and prototype demonstration kits

**Boston University Singh Imagineering Lab Advisor** January 2025 - Present

- Supply guidance and technical support to students utilizing machine tools and engineering equipment for academic and personal projects
- Train and oversee students on safe and effective use of machine tools, including lathes, NC mills, laser cutters, and 3D printers
- Maintain and organize lab equipment and inventory to ensure a safe and efficient working environment

## Skills

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