Matthew Wilkins

Objective

Obtain a co-op position that will utilize Mechanical or Manufacturing Engineering skills available from late January to August 2026.

Education

Rochester Institute of Technology, Rochester, New York
Mechatronics Engineering Technology
Bachelor of Science (Expected May 2028)
GPA: 3.27

Skills

Computer: Autodesk Fusion 360, SolidWorks, Multisim, MATLAB, Microsoft Word/Excel/PowerPoint, Optical Comparator Measurement
Machine Fabrication: Tormach CNC Mill, Bridgeport Vertical Mill, Lathe, and 3D Printing

Courses

Current: Mechanics for Mechatronics, Foundations of Metals/Characterizations Lab
Completed: Machine Tools Lab, Manufacturing Processes, Circuits 1, Engineering Communication and Tolerancing, Introduction to Digital and Micro Systems, Electronic Devices

Projects

Hatteras 85 Yacht Engine Maintenance and Bridge Electronics Restoration **(Summer 2025 - Present)**
Maintained two CAT 3412 Twin Turbo Diesel Engines and Replaced the Starboard Engine's Left Bank Turbocharger. Rewired the Bridge's Electronics and Navigation Systems for Compatibility with a UPS.

Bits 'n Bytes **(2024 - Present)**
Collaboration to make an AI-Powered Smart Store. Designed and crafted a wooden cabinet housing electronics and store items. Wired and routed electronics. 3D modeled and printed camera and door components.

Air Engine **(Spring 2023 - Fall 2024)**
3D modeled an air engine using Geometric Dimensioning and Tolerancing (GD&T) in SolidWorks, and later manufactured in aluminum and steel on a lathe/mill.

Aerial Search and Rescue Modular Thermal Payload **(Fall 2022 - Spring 2024)**
Designed and Prototyped a Quick-Release Custom-Stabilized Thermal Detection Payload using TensorFlow computer vision with modular capabilities to be mounted beneath a mid-to-large drone. Payload expansion includes drop kits and flood light support for fast-action medical and shelter supplies.

Porsche 986 Boxster S 550 Spyder Restoration **(Summer 2021)**
Restored Internal and External Aesthetics and Mechanical Components of a 2004 Porsche 986 Boxster S 550 Spyder Anniversary Edition, including: IMS Bearing, Belts, Bushings, and Internal Touch Points using Sourced Parts and 3D Printing.

Experience

Split Second Shutter, MD
Photographer/Videographer **(2017 – Present)**
Photographs and edits sports, weddings, graduations, and other events.
Produces and edits sports, weddings, graduations, and other event films.

Wilkins Automotive, Glen Burnie, MD
Express Service Mechanic, Sales, Marketing **(Summers 2018 – 2023)**
Serviced GMC, Buick, and Subaru Vehicles. Produced media for point of view driving/reviews and photography for social media and sales homepage.

Activities

Computer Science House, RIT
Treasurer **(Fall 2025 - Present)**
Oversee Budgeting, Spending, and Financial Documentation for a Special Interest Housing Community, ensuring Fiscal Responsibility and Accurate Spending.

3D Printer Administrator Director **(Fall 2023 - Present)**
Maintain 3D printers, lubricate and clean components, rebuild mechanical and gantry systems, perform presentations/seminars on operation and safe use. Perform presentations/seminars on 3D design and modeling.

First Tech Challenge: First Robotics
Co-lead Robot Designer/Engineer **(Fall 2019 - Spring 2023)**
Co-led design team for FTC team 3886. Designed/3D modeled robot components to be manufactured, built, and tested for prototyping and final competition of a robot.

Interests

Robotics, Tinkering, Electronic/Automotive Maintenance/Modding, Drone Design and Flight, Photography/Video/Cinematography Creation and Editing, Enthusiast Car Driving and Autocross