

# Maxwell Willix | Please Visit [maxwellwillix.com](http://maxwellwillix.com)

(585)-430-0670 | [maxwellwillix.@outlook.com](mailto:maxwellwillix.@outlook.com) | [www.linkedin.com/in/maxwell-willix/](http://www.linkedin.com/in/maxwell-willix/)

## EDUCATION

### The University of Scranton

Scranton, PA

*Bachelor of Science in Mechanical Engineering*

*May 2025*

- **GPA:** 3.71 / 4.0
- **Honors:** Magna cum laude; Dean's list (All semesters); Loyola scholarship.
- **Relevant Coursework:** Statics, Dynamics, Fluid Dynamics, Thermodynamics, Measurement and Instrumentation, Manufacturing Processes, Circuit Analysis, CAD, Control Systems, Heat Transfer, Mechanical Vibrations, Engineering Economics, Machine Design, Senior Design I & II.
- **Independent Online Course:** Revit: Essential Training for MEP.

## RELEVANT WORK EXPERIENCE

### General Dynamics Ordnance and Tactical Systems

Wilkes-Barre, PA

*Mechanical Engineering Intern*

*May 2024 – December 2024*

- Designed custom work holding solutions using SolidWorks and AutoCAD to support various manufacturing tasks.
- Created visual work instructions for CNC lathe operations to optimize machining processes.

### Industrial Indexing Systems

Victor, NY

*Assembler/Solderer*

*June 2021 – August 2021*

- Soldered and assembled electronic systems in collaboration with the manufacturing team.

## ACTIVITIES & INTERESTS

### The University of Scranton Division III Men's Lacrosse

Scranton, PA

*Member*

*September 2022 – September 2024*

- Committed approximately 20 hours per week to training, meetings, film study, travel and competitions while maintaining a full course load; developed strong work ethic and teamwork skills.

### Institute of Electrical and Electronics Engineering Club

Scranton, PA

*Member*

*September 2022 – Present*

- Attended seminars focused on professional development across various engineering disciplines.

## Projects

### Automated Deburring Machine

- Developed an automated system to deburr the interior of a hollow cylindrical part used in high-precision applications, enhancing efficiency and eliminating safety risks by actuating a die grinder on two axes with pneumatic cylinders.

### Modular Fairing for Road Bikes

- Designed, developed, and prototyped a modular fairing to improve the aerodynamics of shallow-section road bike wheels, executing the full engineering design process from opportunity identification to final prototype testing.

### Injection Molded Restaurant Pager

- Designed a restaurant pager using SolidWorks, incorporating lip and groove joints, screw bosses, and ensured manufacturability by meticulously following injection molding design guidelines.

### Sand Casted Ring Stand Project

- Designed and manufactured a sand-cast aluminum ring stand, following ASME guidelines for casting processes. The project included 3D printing the pattern, creating a cope and drag mold, and casting the final product.

### Quartz Clock Reverse Engineering Project

- Reverse engineered a quartz clock by defining product requirements, analyzing materials and manufacturing processes, creating a bill of materials, and developing CAD and mathematical models of the drivetrain.

### ANSYS Crankshaft Analysis Project

- Used ANSYS to perform fatigue, modal, harmonic, and transient analyses on a single-cylinder engine crankshaft, and demonstrated infinite fatigue life using Goodman criteria.