

LUCAS GRIWICKI

Mechanical Engineering | Product Development, Design, and Manufacturing
Canton, MI | 734-740-3452 | lgriwick@umich.edu

EDUCATION

University of Michigan–Dearborn

Dearborn, MI

Bachelor of Science in Engineering, Mechanical Engineering | GPA 4.00 / 4.00

Expected April 2027

Honors James B. Angell Scholar (2025, 2026) | William J. Branstrom Prize (2024) | University Honors, every term

Coursework Design and Analysis of Machine Elements, Design Stress Analysis, Manufacturing Processes, Design for Manufacturing, Control Systems Analysis and Design, Instrumentation and Measurement Systems, Engineering Dynamics, Thermal-Fluid Sciences, Engineering Materials, Computer Methods for Engineers, Engineering Computer Graphics, Senior Design.

ENGINEERING EXPERIENCE

Ford Motor Company

Dearborn, MI

Driveline Product Development Engineering Intern

May 2026 – July 2026

- Owned a front-axle driveline corrective action end to end, from root cause investigation through validation planning and service release.
- Opened and led engineering meetings with several external suppliers, setting deliverables and timing while tracking prototype orders in parallel.
- Wrote an Excel VBA tool that verifies designs against engineering design rules across model years, cutting a long manual review down to a fraction of the work.
- Built a script that pulls component data out of CAD into a structured format, cutting out manual re-entry and the errors that came with it.
- Analyzed a component fill-level study using production data from thousands of units, confirming specification compliance and redirecting a cost-savings effort toward better options.
- Created and delivered hands-on AI training for the engineering team on practical use of the tools and where not to rely on them.

Yazaki North America

Canton, MI

Mechanical Engineering Intern

May 2025 – August 2025

- Validated connector and terminal specifications for the GM business unit and identified alternative parts that met the same requirements at lower cost.
- Prepared work orders for XC library updates tied to more than \$200K in annual savings.
- Automated recurring data handling in Excel with VBA, then trained engineering staff on the tools so the work stayed usable after the internship ended.

TECHNICAL PROJECTS

3D-Printed Arduino Vehicle

University of Michigan–Dearborn | Winter 2024

- Designed and 3D printed a chassis for an Arduino-driven vehicle with a small team, working inside the design constraints set for the project.
- Wired and assembled the drivetrain and electronics, including motors, power modules, and IR sensors for path tracking.
- Programmed the vehicle in the Arduino IDE and tuned sensor thresholds and motor values across test runs until it tracked the path reliably.

LEADERSHIP

Lightning Robotics — FIRST Robotics Competition Team 862

Canton, MI

Alumni Mentor | Fabrication Lead

Jan 2024 – Present | Sept 2018 – June 2023

- Led fabrication for a robot that finished in the top 11 statewide and qualified for the FIRST World Championship.
- Managed the team's CNC machining and 3D printing, checked parts for accuracy, and trained newer members on the equipment.
- Worked across the design and programming subteams to hold the build schedule, and now mentor current students on fabrication and manufacturing methods.

TECHNICAL SKILLS

CAD and Design CATIA, Fusion 360, 3D modeling, engineering drawings

Programming and Automation Excel VBA, MATLAB, Arduino, scripting for CAD data extraction

Manufacturing CNC machining, 3D printing and additive manufacturing, drill press, fabrication tools, prototyping

Engineering Methods Root cause analysis, design validation, design-rule verification, specification review, technical documentation

Software Microsoft Excel, Word, PowerPoint, Adobe Creative Cloud