

# Eli Thummel

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## EDUCATION

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### Bachelor of Science in Mechanical Engineering

University of Notre Dame • Notre Dame, IN • May 2025 • 3.6 GPA

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## EXPERIENCE

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### Machine Shop Lab Assistant

Engineering Innovation Hub

August 2022 - Present, Notre Dame, IN

- Accumulated over 200 hours of hands-on experience operating Haas 5-axis CNC machines and helping with custom CAM processes.
- Guided students in mastering SolidWorks design, enhancing their proficiency in 3D modeling and CAD software.

### Co-Founder, CTO

Impulse3D LLC, Design and Manufacturing

May 2022 - Present, South Bend, IN / Beverly Hills, MI

- Consulted on project strategy and design for manufacture for nearly a dozen startups and research labs, and 3D-printed parts for clients, utilizing FDM, SLA, and SLS technologies. Generated \$11,000 in revenue.
- Created and owned the website ([impulse3dprinting.com](http://impulse3dprinting.com)) to attract new clients.

### Materials Logistics Management Intern

Stellantis

May 2023 - July 2023, Warren, MI

- Developed and implemented a fully automated inventory reporting system for steel processes at the Warren Stamping Plant, significantly improving tracking accuracy and reducing manual reporting time. Used Microsoft Excel, Power Bi, and Automate.
- Managed and coordinated steel logistics operations, overseeing the movement of materials within the plant and orchestrating the delivery schedules from steel suppliers to ensure seamless production.
- Collaborated with steel suppliers and transportation team to optimize delivery schedules, minimizing downtime and ensuring consistent material flow to the plant.

### Optics Engineering Intern

Magna International

June 2022 - August 2022, Auburn Hills, MI

- Developed, fabricated, and validated an innovative optical fixturing system to address a known issue in automotive camera functionality.
- Collaborated with engineers to perform detailed design work using SolidWorks and CATIA for key projects with VW, BMW, and Toyota, contributing to the development of advanced optical components.
- Researched and engineered a streamlined lighting system that successfully integrated D65 and infrared lights, achieving precise control over light intensity for enhanced testing and analysis.

### Additive Manufacturing Intern

Lumen North America

February 2021 - August 2021, Rochester, MI

- Established and managed additive manufacturing operations, overseeing 3D printing processes for both prototype development and production of end-use parts.
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## INVOLVEMENT

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### Technical Director

Notre Dame, IN • Fighting Irish Racing — Formula SAE • August 2021 - Present

- Co-founded the first Formula SAE club at the University of Notre Dame, recruiting over 60 students and managed an effective onboarding process for team development and project management.
- Designed a custom air intake optimized for given air restriction and validated by FEA simulation.

### FIRST Robotics Team Leader

Pontiac, MI • FIRST Team 33 — Killer Bees • August 2018 - June 2021

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## PROJECTS

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### Custom Built High Performance Electric Scooter

Impulse 3D • [www.impulse3dprinting.com/whyperscooter](http://www.impulse3dprinting.com/whyperscooter) • May 2023 - September 2024

- Designed and manufactured a 70 mph full-suspension electric scooter within 1.5 years as part of an independent study project. Dedicated over 2,000 hours to FEA simulations, prototyping, machining, welding, and custom electrical work.