

ERIK ROTTINGHAUS

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WORK EXPERIENCE

Mortenson Construction – Wind Group

Vernon, Texas

Field Engineer Intern

June 2023 – August 2023

- Performed 7 types of field inspections daily on wind turbine foundations to ensure all foundations complied with owners' and Mortenson's quality standards based on engineering drawings
- Created data-based reports of concrete strength and temperature to reassure the owners of quality production
- Communicate and coordinate work with a team of 9 engineers and 100+ craft workers to efficiently complete inspections and keep workflow moving at the pace desired by team leadership

Veterans Affairs Hospital

Minneapolis, Minnesota

Research Assistant

June 2021 – August 2021

- Analyzed and tested tensile strength of 3D printed devices related to ear stints for Veterans to optimize the 3D print time while maintaining proper strength requirements

EDUCATION

Purdue University, John Martinson Honors College

West Lafayette, Indiana

Major in Mechanical Engineering with a Minor in Computer Science

Expected Graduation: May 2026

- GPA: 4.00/4.00
- Semester Honors (Fall '22, Spring '23, Fall '23); Dean's List (Fall '22, Spring '23, Fall '23)
- Global Egypt Study Abroad May 2023
 - Immersed in the rich cultural heritage of Egypt through visits to historical sites and partaking in traditional activities to foster cross cultural communication skills and deepen global perspectives

Wayzata High School

Plymouth, Minnesota

GPA: 4.30/4.00; Top 10 Senior Award

September 2018 – June 2022

ACTIVITIES & VOLUNTEERING

Energy and Transport Sciences Laboratory

West Lafayette, Indiana

Undergraduate Researcher

August 2023 – Present

- Develop a python graphical user interface that solves for the lithium concentration over time inside of the cathode of a lithium-ion battery given varying inputs related to battery characteristics

Theta Tau Professional Engineering Fraternity

West Lafayette, Indiana

President

November 2023 – Present

- Represent the fraternity in negotiations with university officials, promoting cooperation and compliance
- Manage an annual budget of over \$400,000 to host professional events and upkeep mandatory payments
- Host monthly officer meetings to keep officers accountable and improve communications among the members

Rush Chairman

March 2023 – November 2023

- Recruited a record-high new class of 26 members to increase energy and engagement across the organization
- Advertised rush events using social media and direct outreach to increase attendance at events

Social Chairman

August 2022 – December 2023

- Organized 8+ events for 400+ attendees to foster engagement with other organizations on campus
- Managed a budget of \$3,000 per semester to optimize the number, safety, and quality of events

American Society of Mechanical Engineers

West Lafayette, Indiana

Member of Rude Goldberg Team/Sports Equipment Design Team

August 2022 – November 2023

- Designed and developed a machine to compete in the National Chain Reaction Competition using 3D printed parts
- Conceptualized, engineered, and produced a three-position adjustable cable attachment to enhance user flexibility

SKILLS & INTERESTS

- **CAD:** NX (Intermediate), Autodesk Inventor (Intermediate)
- **Programming Languages:** Java (Intermediate), Python (Intermediate), MATLAB (Intermediate), C (Novice)
- **Microsoft Office:** Excel, Word, PowerPoint
- **Interests:** Clean Energy, Quant Trading, Sports Analytics, Artificial Intelligence