

# DARA SAFE

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## EDUCATION

### University of Wisconsin – Madison

B.S. Mechanical Engineering, Class of 2023

- Overall GPA: 3.48 / Major GPA: 3.58

## PROFESSIONAL EXPERIENCE

### Engine Research Center

6/22 – 8/22

Assistant

- Worked 4-6 hours daily designing, building, and fixing lab equipment, sorting and organizing supplies, and cleaning out research spaces.
- Learned about diesel and gas internal combustion engines and how to identify testing requirements for optimizing combustion performance and pollutant emission control.

### Internship on Demand Spectrum Brands

10/21 – 12/21

Pre-Intern

- Worked 40 total hours designing and collaborating with a cohort of engineering students to redesign a Russell Hobbs kettle utilizing the implementation of light piping while aiming to stay under 5% of manufacturing costs.
- Learned and applied early-design research, design thinking principles, design of manufacturing, and decision matrix to ensure performance and aesthetic quality meet the final customer's needs.

### Gas Cleaning Technologies

5/21 - 9/21, 4/19 – 8/19

Intern

- Worked 5-10 hours weekly with the process team to conduct literature searches, process data, and assist with material selection for various process equipment.
- Gained experience in air pollution control, clean energy, and optimization for metallurgic process plants.

## ACTIVITIES

### Insight Wisconsin

10/19 – 12/21

General Member

- Applied lean engineering principles to complete two rounds of the prototype cycle, including prototype testing and revisions.
- Created drawings and 3D prototype design of a bike compost trailer and lens switcher and presented progress updates to corporate professionals and other club departments.

### Badger Powerlifting Team

9/19 – 5/20

Head Captain

- Managed weekly practices and team competitions and led periodic seminars on exercise technique and execution.
- Worked with 30+ members to set, work towards, and accomplish their SMART goals with an 80% success rate.
- Grew club by more than 20% through individual recruitment and promotion via social media.

## PROJECT EXPERIENCE

### Helix App

11/22 – Present

Co-founder

- Developed the UI and UX for the table reservation service app and website.
- Led the marketing strategy to integrate our service in 10+ prospective venues.

### Independent Study

9/22 – 12/22

- Composed a research report on industrial steel reheat furnace mechanisms and the integration of hydrogen production pathways to reduce carbon emissions.
- Presented a summary of my findings to Professor David Rothamer weekly.

### Renewable Energy System Modeling

3/21 - 4/21

- Explored applications of existing and developing renewable energy systems and analyzed renewable energy projects for BSE 367.
- Created a System Advisor Model (SAM) to produce 1000MWh per year in Inglewood, California, while minimizing system complexity and Levelized Cost of Electricity (LCOE).

## ACCOMPLISHMENTS

- Accomplished in SolidWorks and MS Office Tools
- Sufficient in Python, SQL, and LabView
- MATLAB and Simulink Onramp Training Course Certificate
- Top ranked powerlifter and IPF World Medalist for Team USA