

SHAE STONEMEIER

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EDUCATION

Purdue University, West Lafayette, Indiana
Bachelor of Science in Mechanical Engineering, Minor - Anthropology
GPA: 3.57, Engineering Dean's List (Fall 2022, Spring 2023)

Anticipated Graduation: May 2026

ENGINEERING EXPERIENCE

Electric Vehicle Club (Purdue University), Kart Team Lead September 2023 - Present

- Lead a team of 6 in the chassis-up construction of an EV kart including the construction of the brake system, steering column, rear axle, drivetrain, and other additions to comply with safety regulations and standards of the race
- Optimize the efficiency of the kart through the drivetrain setup including motor controller and motor settings, steering and kingpin stack tuning, and brake system tuning
- Instruct the driver on proper technique to limit energy use around the track and increase overall efficiency

Electric Vehicle Club (Purdue University), Battery Sub-Team August 2023 - Present

- Work with 6 team members to design four new battery packs with increased voltage while focusing on optimizing power output, weight reduction, cost, and ease of use in terms of maintenance and safety standards
- Design a mechanically sound case and mounting system for the packs that can withstand the high forces experienced during a race and prioritize a quick-release design to improve the ease of use of the pack
- Focus on experimental and simulated data to optimize design decisions relating to cell type and configuration

Electric Vehicle Club (Purdue University), Driver March 2023 - Present

- Collaborate with crew chief to provide specific feedback about each kart component to optimize vehicle dynamics and handling using comprehensive knowledge about all systems of the kart
- Constructed fairing mounting, chain guard and mounting, and brake system on a short timeline with available parts
- Reverse engineered, then redesigned the electronics board for the main functions of the kart's motor, motor controller, and Battery Management System

Johns Hopkins University Applied Physics Laboratory, ASPIRE Intern October 2021 - June 2022

- Gain exposure to and support Europa Imaging System (EIS) optical calibration and performance testing
- Process FITS images and header information in Python, Matlab, and Ds9 imaging software to make raw data usable
- Assist with equipment testing in the optical calibration facility in preparation for flight model calibration testing

LEADERSHIP EXPERIENCE

Hillel at Purdue University, Treasurer December 2023 - Present

- Complete the annual SFAB (Student Fee Advisory Board) application to receive funding for events serving the Purdue Jewish community throughout the school year
- Collaborate with the Executive Director and other programming officers about fundraising, grant applications, and other programming events to ensure proper financial support for these activities
- Monitor and maintain all financial accounts, profiles, and paperwork for the organization to the standard of the Business Office of Student Organizations (BOSO)

Olin-Sang-Ruby Union Institute, Overnight Camp Counselor (paid position) June 2023 - August 2023

- Used creative and on-the-spot thinking to actively engage campers (ages 7-12) through active changes of the day
- Provided on-call staffing and programs in a constantly changing environment
- Supported emotional and behavioral needs of campers during their first experience away from home

SKILLS

- **Programming and Software:** MATLAB **CAD Modeling:** NX, Solidworks, Inventor, Fusion 360