Zoha L. Peterson

724-759-8490 | peter730@purdue.edu | linkedin.com/in/zohapeterson | github.com/zohapeterson | zohapeterson.com

Education and Technical Skills

Purdue University – *West Lafayette, IN*   *Expected Graduation in 05/2025*
Bachelor's of Science in Mechanical Engineering; 4 time Semester Honors and Dean's List   **3.69 GPA**
Technical Skills: Siemens NX, Fusion 360, CATIA V5, ANSYS, MATLAB, Python, C

Work Experience

Textron Aviation – Special Missions Airframe Design Engineering Intern   *05/2023 - 08/2023*
Wichita, KS
- As per a new Special Missions contract, prepared 10 aircraft outer mold line (OML) 3D models, engineering drawings per ASME Y14.5, and bill of materials (EBOMs) for 3D printing using CATIA V5
- Revised and managed the release of 18 engineering drawings, EBOMs, and 3D models to ensure proper manufacturing, product sustainment, and dimensioning and tolerancing
- Modeled and released 5 critical parts for aircraft attachment and engineering team utilization
- Developed Excel documents at the detail, assembly, and installation level to facilitate organization, engineering efficiency, and manufacturing per tight client schedule and technician requirements

Mechanical Engineering Machine Shop – Manufacturing Assistant   *08/2023 - Present*
Purdue University – West Lafayette, IN
- Taught students in the use of advanced manufacturing machinery, including mills and lathes, CO_2 lasers, and band saws, specializing in aluminum, steel, brass, and other materials
- Ensured tolerance and material compliance, design for manufacturing, and quality assurance
- Analyzed engineering drawings and successfully translated them into precise, high quality products

School of Computer Science – Undergraduate Researcher   *05/2022 - 12/2022*
College of William & Mary – Williamsburg, VA
- Designed multi-GPU simulation software to report critical performance statistics using cycle based calculations, Go, and Github to broaden understanding of parallelism based computing systems
- Built poster to thoroughly display the purpose, approach, and technical results of the project

Data Science Labs – Undergraduate Teaching Assistant   *08/2022 - 12/2022*
Purdue University – West Lafayette, IN
- Led a lab of 15 students that demonstrates the link between data science, engineering, and calculus
- Improved Python curriculum via Github, built hardware powered by Raspberry Pi, and proactively implemented a Slack communication system for lab leaders
- Resolved circuitry, Python, and Jupyter Notebook issues whil enhancing student understanding

Steel City Codes – Director of Curriculum, Volunteer Teacher   *06/2020 - 05/2021*
Pittsburgh, PA
- Led the design of computer science curriculum while dedicating 50+ hours as a volunteer teacher

Professional Activities

Purdue Space Program: Liquids – Mechanical Engineer   *02/2023 - Present*
Purdue University – West Lafayette, IN
- Collaborated on an Ethanol, LOx liquid rocket to compete in FAR-DPF targeting a 65,000 ft. apogee
- Developed critical fin can, ground support equipment, recovery bay, and testing structures for rocket integrity, strength, manufacturability, and mass optimization
- Designed using NX and Fusion 360, simulated with ANSYS, calculated relevant factors of safety, manufactured with Fusion 360 and HAAS VF-2, managed engineering documents with TeamCenter
- Created technical presentation material for Critical Design Review to be presented to professionals

ASME – Director of Industrial Relations, Executive Board Member   *08/2022 - Present*
Purdue University – West Lafayette, IN
- Led a team of 5 engineers tasked with expanding industry connection, fostering member professional development, and acquiring funding while growing club impact and mentoring members
- Created project management material, including a Kanban-inspired backlog powered by Javascript