# Zoha L. Peterson

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## 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:*** NX, Fusion 360 CAD and CAM, CATIA V5, ENOVIA V6, ANSYS, MATLAB, Excel, Python, C, TeamCenter, HTML, CSS, Microsoft Office

## 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, GD&T drawings, and engineering bill of materials (EBOMs) for 3D printing using CATIA V5 and Excel
- Revised and managed the release of 18 engineering drawings, EBOMs, and 3D models to ensure proper manufacturing, product sustainment, and graphical dimensioning and tolerancing (GD&T)
- 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*

- Guided students, faculty, and researchers in the use of advanced manufacturing machinery, including mills, lathes, $CO_2$ lasers, and band saws, specializing in aluminum, steel, brass, and other materials
- Ensured proper tolerances, design for manufacturing, quality assurance, and material compliance
- Analyzed GD&T 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 and Linux, built hardware powered by Raspberry Pi, and proactively implemented a Slack communication system for lab leaders

***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 Siemens NX and Autodesk Fusion 360 CAD, simulated with ANSYS, tested structures, calculated relevant factors of safety, and manufactured with Fusion 360 CAM and CNC machinery
- 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