

# 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, Java, C++, Python, C, Go, Javascript, Github, TeamCenter, HTML, CSS, Microsoft Office

## Work Experience

**Textron Aviation – Special Missions Airframe Design Engineering Intern**

*05/2023 - 08/2023*

Wichita, KS

- Developed engineering organization materials at the detail, assembly, and installation level to increase engineering and manufacturing efficiency per tight client schedule and technician requirements
- As per a new Special Missions contract, prepared 10 aircraft outer mold line (OML) 3D models, engineering drawings using GD&T, and engineering bill of materials (EBOMs) for 3D printing
- 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

**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, and band saws, specializing in aluminum, steel, and other materials
- Ensured proper tolerances, design for manufacturing, quality assurance, and material compliance

**School of Computer Science – Undergraduate Researcher**

*05/2022 - 12/2022*

College of William & Mary – Williamsburg, VA

- Designed multi-GPU (Graphical Processing Unit) simulation software to analyze and report critical performance statistics using cycle based calculations, Go, and Github to further GPU technology
- 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, Teacher**

*06/2020 - 05/2021*

Pittsburgh, PA

- Led the design of computer science curriculum with a software development focus for the non-profit
- Volunteered to teach Python and Java to students around the world through a weekly online program

## 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 with NX and Fusion 360 CAD, simulated with ANSYS (mesh convergence), 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