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 3D models, engineering drawings using GD&T, and engineering bill of materials (EBOMs) for 10 aircraft outer mold line parts 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