

- Aeronautics & Astronautics Engineering, with a focus on coding, embedded systems, and simulation
- Computer languages: MATLAB, Python, C/C++, Arduino Uno, Linux, Java, GO, HTML and CSS
- Software Knowledge: Solidworks, LabView, 3D Printing, Blender, XFOIL, Simulink and ANSYS
- Coursework: See comprehensive breakdown on my LinkedIn

## EDUCATION

<b>University of Washington, Seattle, WA</b>	Jun. 2022 - Jun. 2024
Bachelor's of Science in Aeronautics and Astronautics	
<b>Pierce Community College, Puyallup, WA</b>	Jan. 2020 - Jun. 2022
Associates of Science, Aerospace Engineering	

## EXPERIENCE

<b>SPACE Lab: PPT Thrust Stand, Software Specialist (Python), Seattle, WA</b>	Jan. - Jun. 2024
<ul style="list-style-type: none"> <li>• Python: nidaqmx &amp; PySerial to record and calibrate deflection, ensuring accuracy within embedded systems</li> <li>• Embedded serial communication with Arduino UNO using Pytest &amp; PySerial for precise motor control</li> <li>• SPACE Labs vacuum chambers test PPT thrusters, using an oscilloscope for high-frequency oscillations</li> <li>• ANSYS/FEA software to analyze and optimize overall designs for enhanced performance and efficiency</li> <li>• Collaborated on 3D printing optimization techniques &amp; CNC machining for spacecraft thruster stand design</li> </ul>	
<b>Nonlinear Dynamics and Control Lab: Blue Origin RPO, Team Member (Software), Seattle, WA</b>	Jan. - Jun. 2024
<ul style="list-style-type: none"> <li>• C++ used for autonomous vehicle systems (fixed-wing aircraft, underwater gliders, space launch vehicles)</li> <li>• Robot arms involving, underwater robots, and autonomous vehicles through embedded systems expertise</li> <li>• Blender, Python, and C++ utilized for the design of robot arms and underwater robots for overall objectives</li> <li>• Studied birds, bats, fish, and insects as precise sensing machines in dynamic environments, gaining insight</li> </ul>	
<b>Cryogenic Boiling, Purchasing Officer/Heat Transfer expert, Seattle, WA</b>	Mar. - Jun. 2023
<ul style="list-style-type: none"> <li>• Theoretically calculated properties for enhanced understanding of heat transfer &amp; cooling in liquid nitrogen</li> <li>• Participated in group-based experimental research to explore and confirm the validity of theoretical findings</li> <li>• Uncovered: Boiling characteristics, rapid cool-down times, and heat transfer dynamics by immersing aluminum cylinders, along with precise quantitative data on heat transfer during liquid nitrogen quenching</li> </ul>	

## PROJECTS

<b>Aerospace Design - Personal Project, Seattle, WA</b>	Dec. 2022 - Present
<ul style="list-style-type: none"> <li>• CAD &amp; Slicer software were utilized for the 3D printing of designs, development, and construction of airfoils</li> <li>• ANSYS software to analyze and optimize airfoil designs printed for enhanced performance and efficiency</li> <li>• Python for structural simulations, parameter definition, model discretization, and stiffness matrix assembly</li> <li>• Boundary conditions implemented and result visualization to analyze and interpret the simulation outcomes</li> </ul>	
<b>Incompressible Aerodynamics - Vortex Panel Project, Seattle, WA</b>	Mar. - Jun. 2023
<ul style="list-style-type: none"> <li>• MATLAB used to analyze the aerodynamics of 4 airfoils (NACA 0010, NACA 1410, NACA 2410, NACA 6409)</li> <li>• XFOIL airfoil software to gain valuable insights into the aerodynamic characteristics of the selected airfoils</li> <li>• Data acquired containing Cl v.s. Cd, Cd versus <math>\alpha</math>, Cm v.s. <math>\alpha</math>, Cl v.s. <math>\alpha</math>, and Cp v.s. x/c for <math>\alpha</math> values of 0, 5, &amp; 10</li> <li>• Airfoil performance were all compared, this establish a foundation for further analysis and optimization</li> </ul>	

## LEADERSHIP

<b>A&amp;A, Undergraduate Student Advisory Council (uSAC) - Senior Class Rep, Seattle, WA</b>	Aug. 2023 - Jun. 2024
<ul style="list-style-type: none"> <li>• Planning events and improving staff-student communication. Striving to enhance the student experience</li> </ul>	
<b>NASA ARTEMIS Challenge - Team Coordinator, Seattle, WA</b>	Jan. - Jun. 2022
<ul style="list-style-type: none"> <li>• Collaborated closely to meticulously design and 3D print critical parts of the rover, optimizing its design</li> <li>• CAD and Simulink were skillfully utilized to create highly efficient and innovative components for the project</li> <li>• Code complications resolved frequently during rover assembly, demonstrating expertise in problem-solving</li> <li>• Design deficiencies were addressed during assembly, implementing effective solutions for project success</li> </ul>	

## ACHIEVEMENTS & SCHOLARSHIPS

UW: Technical Award for Innovation - SPACE Lab PPT Thrust Stand (Electrical Propulsion) • NASA Space Grant Consortium 2022 - 2024 • A&A - Lace Erik Scholarship, Robert Max Reynolds Endowed Scholarship, Joseph F. Sutter Endowed Education • Boeing Scholarship • Features: PNAA 2024: Next Generation Workforce Panel Speaker • Space Grant: Women's History Month • Pierce College: Dean's list April of 2020 - Jan 2022