

# Chloe Olson

206.472.0566 | [chloeko90@gmail.com](mailto:chloeko90@gmail.com) | [www.linkedin.com/in/chloekolson](http://www.linkedin.com/in/chloekolson) | [olsonchloeportfolio.com](http://olsonchloeportfolio.com)

## Education

**B.S. Mechanical Engineering & Minor in Applied Math**, University of Washington *September 2022 – June 2026*

- GPA: 3.74
- Holloman Best Idea for Addressing Health Access and Disparities Award, Dean's List (8x), Annie Masters Scholarship, Granite Construction's Character Matters Scholarship

## Skills

*Software:* CAD – CREO & SolidWorks, Rhino 3D, Finite Element Analysis (FEA) - FEBiO, Python, LabVIEW, Minitab, 3D Slicer, MATLAB, R, Arduino, Microsoft Office Suite, Windchill, Azure DevOps, Visual 3D, Vicon Nexus, LaTeX

*Manufacturing:* Electrical System/Hardware Assembly, Soldering, 3D Printing, Instron Testing, Lathe, Mill

*General Skills:* Hands-On Problem-Solving, Concept Generation and Optimization, Collaboration, Teamwork, High Energy, Customer-Oriented

## Engineering Experience

**Philips Oral Healthcare (R&D Department)**

**Systems Engineering Co-op**

*September 2025 – Present | Seattle, WA*

- Spearheaded root-cause analysis for water flosser performance issues and authored 30+ simulated-use test protocols to enhance device reliability and ensure ISO 13485 compliance
- Directed test fixture development using CREO, authoring comprehensive specifications and V&V procedures across mechanical, hardware, and LabVIEW software to guarantee design quality and technical performance
- Executed V&V for Sonicare medical device commercial release, authoring 80+ test records using Windchill and Azure DevOps while performing rigorous statistical analysis in Minitab
- Engineered Python-based automation for test data analysis, streamlining product requirement verification and significantly increasing technical workflow efficiency

**Philips Oral Healthcare (R&D Department)**

**Systems Engineering Intern**

*June 2025 – September 2025 | Seattle, WA*

- Re-engineered high-speed video (HSV) verification for oral irrigator medical devices, improving measurement accuracy by 70% through standardized techniques and cross-functional alignment
- Developed precision HSV fixtures using CREO, focusing on enhanced usability and measurement repeatability to support functional development and program management
- Automated the image analysis pipeline by engineering software in Python and OpenCV (adaptive thresholding, contour detection, histogram equalization) to extract quantitative performance metrics
- Integrated deep learning segmentation by fine-tuning a Meta SAM 2 model, enabling automated processing of HSV frames for advanced device verification

**Center for Limb Loss and Mobility (CLIMB), U.S. Department of Veterans Affairs**

**Intern**

*June 2024 – May 2025 | Seattle, WA*

- Developed a sensor pad system for plantar shear force measurement to monitor and manage diabetic foot disease and presented my work at the CLIMB Young Investigators Symposium
- Designed and evaluated prototypes of the pad with Rhino 3D, FEA - FEBiO, custom transfer functions, and Python/OpenCV to create computer vision programs, ensuring product reliability, product verification, and risk management
- Collaborated with a cross-functional team to test braces for NBA players with a robotic gait simulator and cadaveric feet
- Used 3D Slicer to create 3D models from CT scans, enabling data collection for NBA athlete ankle brace testing

**Computational, Robotics & Experimental Biomechanics Lab**

**Undergraduate Research Engineer**

*October 2023 – May 2025 | Seattle, WA*

- Created a portable biomechanics data collection system using CAD - SolidWorks, inertial measurement units (IMUs), distance sensors, soldering, and electrical system/hardware assembly to conduct gait studies outdoors
- Conducted data analysis using Arduino and Microsoft Office Suite to research tripping biomechanics
- Developed a test method using passive optical motion capture, Visual 3D, and Vicon Nexus to test the system's reliability and performance against the "gold standard"

**Bioengineers Without Borders – Prostheses**

**Design Engineer**

*October 2022 – June 2023 | Seattle, WA*

- Designed a 3D modular prosthetic socket using CAD - SolidWorks, ensuring proper dimensions and adaptability for children
- Researched affordable prosthetic designs and amputee walking gaits as part of a 10-member team, including material types, design and usability requirements
- Project recognized with the Holloman Best Idea for Addressing Health Access and Disparities Award

## Leadership Experience

**American Society of Mechanical Engineering**

**Networking Chair**

*October 2023 – September 2025 | Seattle, WA*

- Organizing 2–3 quarterly networking events, connecting engineering students with industry leaders and professionals
- Demonstrating strong interpersonal skills, fostering professional development by facilitating student-firm interactions