

Matthew Klenk

Seattle, WA | 425-499-1163 | matthewklenk4@gmail.com | <https://www.linkedin.com/in/matthew-klenk-5a40aa1b9/>

Education

University of Washington | Seattle, Washington | Expected Graduation June 2024

Bachelor of Science, Mechanical Engineering

- Dean's List, Engineers Without Borders Club, Cumulative GPA: 3.71
- Men's Ice Hockey Team Captain, First Team All-Pac-12 Defenseman

Experience

Belcan

January 2023 – August 2023

Aerospace Engineering Co-op

Bellevue, WA

- Reduced the run time of an existing Boeing stress analysis tool from 72 hours to 1 hour while maintaining 99.9% accuracy with the original tool.
- Updated 4 Structural Repair Manuals for Repairable Damage and Allowable Damage Limits for multiple Boeing 777X primary wing structures.
- Generated a centralized repository for geometric data from CATIA that is compatible with all Boeing analysis software.
- Exceeded Boeing 777X Wing Stress Engineering Team's expectations on all 3 projects.

UW Control and Trustworthy Robotics Laboratory

September 2022 – Present

Undergraduate Researcher

Seattle, WA

- Developing trustworthy decision-making and control algorithms for autonomous systems.
- Generating code that produces a collision-free, dynamically feasible trajectory for quadrotors.
- Improving guidance, navigation, and control (GNC) technology for autonomous systems.

UW Autonomous Flight and Systems Laboratory

June 2022 - September 2022

Control Systems Engineering Intern

Seattle, WA

- Developed a UAV capable of GPS-free, vision-based navigation with thermal imagery for wilderness search and rescue missions.
- Improved the confidence score of human-identification machine learning algorithms to 80%.
- Implemented a relay drone that allows the search team to cover an extra 2 miles of ground beyond the visual line of sight without violating FAA regulations.
- Improved communication signal between drones and the ground control station.
- Improved geometric calibration of UAV cameras.
- Designed, manufactured, and assembled multiple drone parts.

Additional Experience

Stylist | Banana Republic | Seattle, WA

Caregiver | Washington State Department of Social and Health Services | Seattle, WA

Volunteer | Redmond Penguins Special Olympics Swim Team | Redmond, WA

Areas of Expertise

- | | | |
|-------------------------------|------------------------------|--------------------------|
| • Python | • JavaScript | • Excel VBA |
| • Machine Learning Algorithms | • Computer Vision Algorithms | • Collaborative Autonomy |
| • MATLAB | • CATIA V5 | • Enovia LCA |
| • SolidWorks | • Autodesk Inventor | • PCB Design |
| • Patran | • Nastran | • GD&T |