

Alden Cutler

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EDUCATION

Worcester Polytechnic Institute, Worcester, MA, 3.8 GPA Expected Graduation May 2026

B.S./M.S. in Computer Science, Specialization in Computer Security, Minor in Data Science

Awards: Dean's List (Fall 2023 – Present), Presidential Scholarship (4-year, \$21,000 per year), Winner – GoatHacks 2024

Seattle Academy of Arts and Sciences, Seattle, WA, 3.96 wGPA Graduated June 2022

Awards: National 2nd Place – AFA Cyberpatriot Competition, 1st Place - FRC Rookie of the Year 2019-2020, 1st Place – Think Award at FTC World Championships 2018-2019, 2nd Place – Oregon State Fair FRC Event 2022

WORK EXPERIENCE

Tesla, *Software Engineer Intern*, Palo Alto, CA May 2025 – August 2025

- Reduced CI/CD infrastructure costs by 2.5x through component-specific firmware builds.
- Saved 30 hours of manual work per quarter by automating quantitative analysis of firmware releases using Jenkins, Python, and Splunk enterprise. New system gets results every week instead of once per quarter.
- Improved internal firmware release tooling which fixed a misreporting metric on over 400,000 Tesla Energy devices.
- Reduced time to create firmware release sign-off checklist by 80% with Jenkins automation and Python.
- Wrote firewall config for Megapack internal computer, removing a blanket accept on all customer I/O ports.

Boeing, *Cybersecurity Intern*, Seattle, WA March 2022 – May 2022

- Used shell scripting, Python, and statistical analysis to develop software that monitors per-process resource usage.
- Statistically calculated standard resource usage range for each process on the aircraft's onboard computer.

LEADERSHIP EXPERIENCE

Worcester Polytechnic Institute, in collaboration with Brigham and Women's Hospital, *Senior/Lead Developer*, Worcester, MA March 2025 – May 2025

- Led a 10-person team to apply Agile development methodologies and software design patterns in the creation of a web application prototype running the cloud for Brigham & Women's Hospital.
- Developed using PostgreSQL, Express, React, Node.js stack with Typescript, PrismaORM, MaterialUI, and Tailwind.
- Deployed to the cloud using AWS EC, Docker, and AWS RDS to run the PostgreSQL server.
- Implemented hospital pathfinding, map editor, integrated service request modules, and voice activated user interface.

Worcester Polytechnic Institute, *Research on Public Transit*, Lyon, France May 2024 – July 2024

- Led research efforts to use data scraping, Python/Jupyter notebooks, and a SQL database of >500,000 data points to quantitatively analyze efficiency and spatial density of public transit in Lyon, France.
- Conducted stakeholder interviews and translated findings into actionable insights for global transit authorities.

Redshift Robotics FRC at Seattle Academy, *Business Lead*, Seattle, WA September 2018 – June 2022

- Led club operations, ordered team gear and parts, organized events and travel, managed club funding.
- 2nd place at PNW Regionals 2022, 1st place FRC Rookie of the Year 2019/2020, 1st place FTC THINK Award 2018.

Cyberpatriot Club at Seattle Academy, *Ubuntu/Debian 10*, Seattle, WA September 2021 – June 2022

- Secured Linux systems against simulated cyber threats in a timed competition environment.
- Cyberpatriot XV National 2nd Place – Gold Division.

SKILLS AND INTERESTS

- *Programming Languages*: Python, JavaScript, TypeScript, C, C++, R, Java, x86 Assembly
- *Software*: Git, GitHub, React.js, Node.js, Tailwind.css, PostgreSQL, Jenkins, Confluence, Ghidra, GDB, GEF, Unix/Linux OS, PrismaORM, MongoDB, Flask, Nmap, Pandas, Numpy, PyTorch
- *Language Skills*: English (Native), French (Fluent), Mandarin Chinese (Limited Working Proficiency)
- *Interests*: Software Development, Cybersecurity, Machine Learning