Maxwell Steele

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Education

University of Washington Expected Graduation: June 2026

Bachelor of Science in Computer Science | ***3.91 GPA*** *Seattle, WA*

- **Relevant Coursework**: Data Structures & Parallelism, Software Design & Implementation, Database Management Systems, Hardware/Software Interface, Algorithms, Foundations of Computing 1 & 2 (Discrete Math & Probability), Linear Algebra
- **Honors**: 5x Quarterly Dean's List, 3x Washington Award for Technical Excellence

Experience

Software Engineer Intern Sept. 2024 – Present

Pacific Northwest National Laboratory (PNNL) *Seattle, WA*

- **Web Development:** Developed sponsored React web applications for federal government agencies with a focus on AI/ML integration in the Foundational Data Science group at PNNL.
- **Data Visualization**: Created interactive data visualization tools using TypeScript and Airbnb's Visx library for BERTopic-based topic modeling with the goal of extracting insights from large volumes of scientific literature.
- **ML Pipelines:** Improved a core NLP analytic to include seasonal decomposition/classification of time series data using Theil-Sen regressors and permutation testing. Utilized Docker and AWS EC2 for testing and deployment.
- **Professional Development:** Collaborated with UI/UX, DevOps, software engineering, and data science teams to meet sponsor needs. Presented live demos, contributed to technical project reports, and authored a comprehensive user guide for the product.

Software Engineer Intern | Department of Homeland Security June 2024 – Aug. 2024

Pacific Northwest National Laboratory (PNNL) *Richland, WA*

- **National Security Initiatives:** Contributed User Interface development for scientific web interfaces as part of the DHS-WIRED national security program at PNNL.
- **Search Interface:** Created search and filtering tools to query and display results of an NLP pipeline with React, GraphQL, and data visualization grammars including the pyLDAvis Python library.
- **API Development:** Developed a RESTful API using Flask, Python, and AWS S3 to efficiently process and cache dense text corpora, vectorizers, and Latent Dirichlet Allocation (LDA) models on a cloud-based architecture.
- **Independent Research:** Authored a technical abstract and project report detailing contributions and concepts used within the project. Delivered a formal presentation at PNNL's Gold Experience Research Symposium.

Peer Mentor Sept. 2022 – June 2023

Washington State University GEAR-UP *Kennewick, WA*

- Aided students in completing scholarship and financial aid applications.
- Organized and administered college tours for freshman and sophomore cohorts (50+ participants).
- Mentored students in applying to universities including the University of Washington and WSU.

Student Tutor Sept. 2021 – June 2023

Washington State University GEAR-UP *Kennewick, WA*

- Supported 100+ students weekly with high school curriculum coursework.
- Provided daily STEM and career-focused lessons with individualized approaches for underrepresented students.
- Increased retention in school-wide GEAR-UP programs by 30% by collaborating with program faculty.

Projects

Automated E-Commerce Photo Editor | *MERN, React, TypeScript, Node.js*

- Developed a React webapp using the MERN stack and Pixo's image editing API to automate photography editing for online retail marketplaces. Increased personal sell through rates by 20% through automated filter application.

Personal Portfolio | *Next.js, React, TypeScript, HTML/CSS, Framer Motion, Vercel*

Technical Skills

Languages: JavaScript/TypeScript, Python, Java, C, HTML/CSS
Frameworks & Build Tools: React, Node, Flask, NumPy, Pandas, Visx, GraphQL, Docker
Technologies: Git, GitLab, Jupyter, Linux, Bash, AWS, LaTeX