Maxwell Steele

msteele1@uw.edu | linkedin.com/in/maxwell-steele | github.com/max-steele | max-steele.digital

Education

University of Washington Sept 2023 – Expected June 2027

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 Dean's List, 3x Allen School Scholar, 3x Washington Award for Technical Excellence

Experience

Software Engineer Intern Sept 2024 – Present

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

- Developed sponsored React web applications for federal government agencies with a focus on AI/ML integration for automated biosurveillance and anomaly detection in the Foundational Data Science group at PNNL.
- Designed and integrated client-facing data visualization tools using TypeScript and Airbnb's Visx library for BERT-based topic modeling with the goal of extracting insights from large volumes of scientific literature.
- Led the full-lifecycle development (design, implementation, testing) of a serverless user profiles feature, delivering enhanced user engagement through personalized content aggregation (search results, viewing history), scalable UI components, and custom REST endpoints.
- Engineered the backend infrastructure-as-code (IaC) for user profiles using AWS CDK, implementing API Gateway routing, Python Lambda compute, and a single-table DynamoDB design for optimized data retrieval.
- Presented live demos, participated in deliverable presentations, and authored a user guide for the application.

Software Engineer Intern June 2024 – Aug 2024

Department of Homeland Security (DHS), Pacific Northwest National Laboratory (PNNL) *Richland, WA*

- Contributed user interface development for scientific web interfaces as part of the Department of Homeland Security (DHS) WIRED national security program at PNNL.
- Developed search and filtering tools to query and display results of a natural language processing pipeline using React, GraphQL, and data visualization libraries including D3.js and the pyLDAvis Python library.
- Built a REST API microservice using Flask, Python, and AWS S3 to efficiently process and cache dense text corpora, vector models, and Latent Dirichlet Allocation (LDA) components on a cloud-based architecture.
- Authored a technical abstract and project report detailing contributions and NLP concepts used within the project. Delivered a formal presentation at PNNL's Research Symposium.

Peer Mentor Sept 2022 – June 2023

Washington State University GEAR-UP *Kennewick, WA*

- Aided 5-10 students weekly in completing scholarship, financial aid, and college applications.
- Organized and administered college tours for freshman and sophomore cohorts (50+ participants).

Student Tutor Sept 2021 – June 2023

Washington State University GEAR-UP *Kennewick, WA*

- Facilitated learning for groups of 15-25 students daily, including AP CS and high school curriculum coursework.
- Provided STEM and career-focused lessons with individualized approaches for underrepresented students.

Projects

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

- Developed a web application using the MERN stack and Pixo's image editing API to automate photography editing for retail marketplaces; saved hours of work per week and increased sell-through rates by 20% over six months.

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

Technical Skills

Languages: JavaScript/TypeScript, Python, Java, C, SQL, HTML/CSS
Frameworks: React.js, Node.js, Next.js, Flask, Visx
Tools: AWS, Docker, Git, Bash, Jupyter, Linux, LaTeX