Kirsten Graham

kmgraham@uw.edu
linkedin.com/in/kirsten-graham1

Education

University of Washington - Seattle, WA
Master's, Computer Science   *Sept 2023 - Dec 2024 (anticipated)*
Planned coursework: Data Center Systems, Accessibility in Computer Science and Engineering

Bachelor's, Computer Science   *Sept 2020-June 2023*
4.0 GPA (*summa cum laude*), Dean's List, Interdisciplinary Honors, Honors Undergraduate Scholar Award recipient
Select coursework: Database Systems, Compilers, Security, Operating Systems, Distributed Systems, Embedded Systems

Experience

UW Programming Languages and Software Engineering (PLSE) Group
Graduate Researcher   *Sept 2023 - present (ongoing)*
- Extending project that combines equality saturation, a rewrite technique for compiler optimization, with Datalog.

Two Sigma
Software Engineering Intern - New York, NY   *June 2023 - Aug 2023*
- Designed the integration of BigLake, a storage engine from Google Cloud, with internal data lakehouse system.
- Prototyped BigLake table creation and modification in Java, demonstrating first use of BigLake at Two Sigma.
- Enabled efficient analysis and flexible access control for data analysts, supporting increased adoption of lakehouse.

Software Engineering Intern - New York, NY   *June 2022 - Aug 2022*
- Built an event-driven notification system in Java for internal data lakehouse product backed by Apache Iceberg.
- Implemented asynchronous table files deletion using notification system, working in a microservice architecture.

Software Engineering Intern - Houston, TX (remote)   *June 2021 - Aug 2021*
- Developed tool to aggregate data on the quality of pipelines to onboard data used by modelers, using Elasticsearch.
- Reduced support burden by identifying characteristics that make a pipeline more likely to fail, using Python.

UW Database Group
Undergraduate Researcher   *Sept 2022 - June 2023*
- Designed an efficient dataloader for ML on video data by leveraging PyTorch and NVIDIA DALI dataloading libraries.
- Achieved 3.7x speedup in video data loading time compared to a basic Torch dataloader.
- github.com/kirstenmg/video_processing

Undergraduate Researcher   *Jan 2021 - June 2021*
- Optimized video storage manager in C++ to store video metadata in SQL database, improving code maintainability.
- Analyzed how implementation changes affected performance and integration with existing codebase.
- github.com/uwdb/TASM

Leadership

Teaching Assistant: Computer Security   *Sept 2023 - Dec 2023*
- Leading weekly instructional sections and managing logistics for senior-level course of 145 students.

Women in Computing (WiC) at UW   *October 2020 - June 2023*
- Chair (2022-23), Social Events Committee Lead (21-22), Social Events Committee member (20-21)
- As Chair: led eight-person team in planning all WiC events and initiatives, including social, career, and K12 outreach events and discussions on diversity and inclusion, for over 150 active members.
- As Committee Lead: led three-person team in planning community-building events of 50+ attendees.

Synaptech at UW   *Oct 2020 - June 2022*
- Vice President and Hackathon Planning Team Lead (2021-22)
- Led six-person team in planning neurotech hackathon attended by 30+ students.

Society of Women Engineers (SWE) at UW   *Oct 2020 - June 2021*
- Speaker Coordinator for High School Outreach (2020-21)
- Recruited industry professionals for events to inspire students from underserved communities to pursue STEM.