Edward Qin

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Education

University of Washington Seattle, WA

Master of Science in Computer Science *Expected June 2025*

- Coursework: Operating Systems, Natural Language Processing, Database Systems

Bachelor of Science in Computer Science *December 2023*

- GPA: 3.92
- Coursework: Distributed Systems, Machine Learning, Cryptography, Security, Software Design, Databases

Experience

Undergraduate Teaching Assistant September 2022 – Present

University of Washington *Seattle, WA*

- Assisted in algorithms (1 quarter) and probability and statistics (4 quarters) computer science class, including leading weekly discussion section, holding office hours, and answering student questions on online discussion board
- Achieved proficiency in algorithms and problem-solving and communicated effectively to support students' learning

Software Engineer Intern June 2023 – September 2023

Snowflake *Bellevue, WA*

- Improved production-level observability on user-defined functions (UDFs), providing UDF-level granular statistics on both Java and Python UDFs for internal use
- Designed and implemented both C++ stats gathering and propagation logic and incorporated stats visualization in front-end JavaScript infrastructure
- Gained valuable insights in industry-level development workflow and version control by writing design docs, implementing code and regression tests, and requesting code reviews

Computational Science Intern July 2022 – September 2022

Pacific Northwest National Laboratory *Richland, WA*

- Developed Python model measuring conductivity within Lithium Sulfur Sold-State Electrolyte Battery Cathodes, which will be used to provide insights on microstructure network analysis
- Wrote Python algorithm to generated pore networks and current distributions from conductivity calculations
- Ran 200,000 parallelized simulations to determine most energy efficient particle radius and volume fractions

Intern September 2020 – September 2021

Goodwell Technologies *Bellevue, WA*

- Advanced development cycle at e-commerce tech company by helping manage 35 company project boards, documenting internal processes, and generating monthly business reports
- Ensured front end quality for 30 developing sites by testing for Web Content Accessibility
- Reviewed security data by logging daily performance metrics and monitoring Alert Logic security threats

Research/Projects

Undergraduate Research December 2022 – April 2023

University of Washington Systems Lab *Seattle, WA*

- Researched Tensorflow XLA API for memory-efficient machine learning model serialization under PhD student
- Read machine learning systems papers to understand important concepts for machine learning inference on large devices such as parallelism and latency-throughput tradeoff
- Gained valuable research skills in testing and understanding code, reading papers, and participating in meetings

Distributed Key-Value Store | *Java* September 2023 – December 2023

- Implemented course project for distributed key-value store that was linearizable, fault-tolerant, dynamically sharded, and supported multi-key cross-shard transactions
- Created design doc for each phase of the project and implemented 2-Phase Commit and MultiPaxos protocols

Technical Skills

Languages: Java, Python, C/C++, SQL, x86, R, TypeScript, JavaScript, HTML/CSS
Frameworks: React, React Native, Spark Java
Developer Tools: Linux, Git, IntelliJ, CLion, PyCharm, Figma, Windows