

Anton Chen

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TECHNICAL SKILLS

Languages: C, C++, Golang, Python, Java, JavaScript/TypeScript, SQL, R, MATLAB, Julia.

Frameworks: NumPy/Pandas, TensorFlow, Scikit-learn, Matplotlib, Node.js, React.js.

Technologies and Tools: Git, Unix/Linux, Bash, AWS (Lambda, DynamoDB, EC2, CDK, etc.), GraphQL, Redis.

WORK EXPERIENCE

Amazon Web Services, Inc.

Vancouver, BC

Software Development Engineer Intern — Auto Scaling

May 2023 – Aug. 2023

- Overhauling the resource cleanup process for all Application Auto Scaling scaling policies to mitigate customer costs.
 - Implemented **Lambda** functions to robustly identify and delete stale resources, utilizing an eventually consistent design.
 - Leveraged sparse indexing and batched transactions on a **DynamoDB** table to efficiently scan and write deletion intent.

Tesla, Inc.

Fremont, CA

Software Engineer Intern — Cell Engineering

Jan. 2023 – Apr. 2023

- Augmented conveyor routing logic to redirect cells around faulted equipment at the Gigafactory Texas in Austin, TX.
 - Designed and presented a routing algorithm on a directed graph, identifying cells in linear time and recomputing paths.
 - Created a worker pool in **Golang**, processing **1 500** daily equipment updates and caching state to a **Redis** hash.
- Researched unsupervised statistical methods to improve cell defect detection during the manufacturing process.
 - Applied **kernel PCA** on high-dimensional cell manufacturing data, improving captured variance by **18%** for 2 PCs.

Amazon Web Services, Inc.

Vancouver, BC

Software Development Engineer Intern — Auto Scaling

May 2022 – Jul. 2022

- Extended the Amazon EC2 Auto Scaling public API in **Java** to support autoscaling on custom metrics via metric math.
 - Coordinated with engineers, product managers, and a doc writer across three teams to align customer experience.
 - Wrote a data access layer for composite **MySQL-QLDB** nodes to manage scaling configurations of over **230 000** users.
 - Feature impact of **180 million** compute hours per week, used in **10%** of all target tracking scaling policies. [Blog post]

VIPRE Security Group

Burnaby, BC

Software Engineer Intern — Email Security

Jan. 2021 – Aug. 2021

- Built a test automation framework in **Python** to automate backend testing, saving **40 hours** a week of manual QA.
- Parallelized existing policy testing logic with **Robot Framework**, reducing overall test suite runtimes by **65%**.
- Trained and mentored an intermediate software engineer on service architecture, team workflows, and the codebase.

SELECTED AWARDS

- Computer Science Scholarship, The University of British Columbia** Mar. 2022
- Stanley M Grant Scholarship in Mathematics, The University of British Columbia** Oct. 2021
- Ron Riddell and Roy Douglas Scholarship in Mathematics, The University of British Columbia** Oct. 2021
- J Fred Muir Memorial Scholarship in Science, The University of British Columbia** Sep. 2021

EDUCATION

The University of British Columbia

Vancouver, BC

B.Sc., Combined Honors Computer Science and Statistics, Co-op

Expected Graduation: May 2024

- Trek Excellence Scholarship recipient (**top 5%** of undergraduates), cumulative average of **91% (4.0 GPA)**.
- Coursework:* statistical inference*, probability theory*, real analysis, optimization, machine learning, numerical algorithms, operating systems, databases, data structures and algorithms, OOP and design patterns. (*graduate-level courses)