

# Anton Chen

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**Phone:** Provided upon request

## EDUCATION

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### The University of British Columbia

Vancouver, BC

*B.Sc., Combined Honors, Computer Science and Statistics*

Sep. 2019 – May 2024

- Cumulative average of **91% (4.0 GPA)** — Trek Excellence Scholarships recipient (**top 5%** of undergraduate students).
- **Coursework:** statistical inference\*, probability theory\*, optimization, machine learning, analysis. (\*graduate-level courses)

## WORK EXPERIENCE

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### Amazon Web Services, Inc.

Vancouver, BC

*Software Engineer Intern — EC2 Core Platform*

May 2023 – Aug. 2023

- Designed serverless architecture to mitigate resource leaks, preventing up to **244** leaks per day during peak call volume.
- Implemented eventually consistent workflow with **Lambda** functions in **Python** to concurrently delete generic resources.
- Leveraged optimistic locking and indexing strategies on **DynamoDB** table to facilitate **12 900** transactions per minute.
- Decoupled processing stages with **SQS** message queues and dead-letter queues, improving scalability and fault-tolerance.

### Tesla, Inc.

Fremont, CA

*Software Engineer Intern — Cell Engineering*

Jan. 2023 – Apr. 2023

- Augmented conveyor cell routing automation in **Go** to route around equipment faults at Gigafactory Texas in Austin, TX.
- Designed routing algorithm on directed graph of equipment, identifying cells to reroute in linear time on equipment faults.
- Led cross-team initiative to design PLC-to-automation interface via **PostgreSQL**, enabling real-time equipment updates.
- Researched and presented unsupervised ML methods (**kernel methods** on high-dimensional data) for cell defect detection.

### Amazon Web Services, Inc.

Vancouver, BC

*Software Engineer Intern — EC2 Core Platform*

May 2022 – Jul. 2022

- Built customer-facing feature for AWS Auto Scaling, the compute service behind many AWS services (e.g. ECS, Lambda).
- Extended the EC2 Auto Scaling public API in **Java** to support autoscaling of EC2 instances on metric math expressions, directly responsible for scaling EC2 capacity worth **180 million** compute hours per week. [\[Blog\]](#) [\[Documentation\]](#)

### VIPRE Security Group

Burnaby, BC

*Software Engineer Intern — Email Security Cloud*

Jan. 2021 – Aug. 2021

- Wrote **Python** framework to automate spam/malware email classification, eliminating **40 hours** of manual QA per week.
- Trained and mentored intermediate software engineer; responsible for the onboarding and knowledge transfer processes.

## SELECTED PROJECTS

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*Campus Safe Walk Planner — Pinnacle Hackathon*

Sep. 2021

- Created webapp offering safe trip planning at Pinnacle, an invite-only hackathon for the **top 50** national collegiate teams.

*Rubik's Cube Solver Neural Network — Personal Project*

Aug. 2020

- Designed and trained deep neural network with **TensorFlow**, perfectly solving any Rubik's cube with **70%** success rate.

## SELECTED AWARDS

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- **Department of 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

## TECHNICAL SKILLS

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- **Languages:** C, C++, Python, Java, Go, JavaScript, TypeScript, SQL, R, MATLAB, Julia.
- **Frameworks and Libraries:** NumPy, TensorFlow, Scikit-learn, Matplotlib, JUnit, Node.js, React.js.
- **Technologies and Tools:** Git, Linux, Bash, GraphQL, Redis, AWS (Lambda, DynamoDB, CDK, IAM, etc.).