Anton Chen

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EDUCATION

The University of British Columbia - Bachelor of Science

Vancouver, BC

Honours Computer Science and Statistics, with Co-op

Sep. 2019 — Present

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- Trek Excellence Scholarship recipient, awarded to the top 5% of undergraduates; cumulative average of 92% (4.0 GPA).
- Coursework: data structures, algorithms, OOP, software engineering, multi-threading, software architecture, applied statistics, honours linear algebra, and honours multivariable calculus (all courses received A+).

International Baccalaureate • Certificate Program

Calgary, AB

■ Mathematics HL (7/7) and Physics SL (7/7).

Sep. 2017 — May 2019

Work Experience

VIPRE Security Group • Email Security Cloud, Backend Development Team

Burnaby, BC

Software Engineer Intern, in Test

Jan. 2021 — Aug. 2021

- Led design and development of test automation framework in Python for backend email-processing cloud services.
 - Implemented REST API endpoint testing libraries on spam and virus detecting Docker microservices.
 - Refactored existing verification methods to utilize concurrency, reducing test suite runtimes by over 65%.
 - Fully automated backend regression and integration testing; saved over 40 staff hours monthly from manual verification.
- Designed and automated end-to-end tests with Python's Robot Framework on highly distributed AWS cloud services and MySQL databases, processing over 1.2 billion emails monthly from 50 000 business customers.
 - Wrote SQL queries to manage paid customer package configurations and cached virus sample hashes.
 - Developed Bash scripts to perform automated deployment testing across over 50 servers globally.
- Trained and mentored full-time software engineer hire with system architecture, scripting, and reading code bases.

TECHNICAL PROJECTS

Vaccelerator • HackUCI 2021 Hackathon Project; Placed 2nd out of 89 teams

Jan. 2021

- Member in team of five; built a web-app offering data-driven COVID-19 vaccine rollout insights and information.
- Created an interactive US heatmap in Python to visualize pandemic vulnerability by scraping 334 days of CDC data.

Rubik's Cube Solver Neural Network • Solo Project

Aug. 2020

- Designed and implemented a deep neural network with TensorFlow, solving any Rubik's cube with over 70% success rate.
- Developed a data generation algorithm in Python, producing 8 million scramble patterns and corresponding solutions.

Two-Dimensional Physics Engine • Solo Academic Term Project

Jan. 2020 — Apr. 2020

- Engineered a GUI application in Java, using OOP principles and MVC patterns to simulate inelastic object collisions.
- Incorporated data persistence with CRUD data-parsing methods, allowing users to manage multiple environment states.

Extracurricular Experience

Competitive Robotics • VEX Robotics Club

Sep. 2018 — Feb. 2019

- Group member in year-long five member project to design, build, and code a VEX robot from scratch.
- Roles include robot design, construction, and programming autonomous action in ROBOTC, a C-like language.

Volunteering and Community Service • Volunteering Club

Sep. 2016 — Jun. 2019

- Over 50 hours of volunteer experience; includes tournament hosting, food donation preparation, and bottle drives.
- Taught grade school kids coding fundamentals with Scratch and code.org at the Coding Buddies organization.

TECHNICAL SKILLS

Languages: C/C++, Python, Java, SQL, R, x86 Assembly, Bash, HTML/CSS, Racket (Scheme), IATEX.

Frameworks and Libraries: TensorFlow, Robot, JUnit, Swing, NumPy/Pandas, Matplotlib.

Developer Tools: Git, Unix/Linux, Docker/Docker Compose, Atlassian Product Suite.

Methodologies: Agile, Scrum, Kanban.