Anton Chen

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EDUCATION

The University of British Columbia — *B.Sc. (Hons)*　　　　　　　　Sep. 2019 — Present
Combined Honours in Computer Science and Statistics, with Co-op　　*Vancouver, BC*
- Cumulative average of 92% (equivalent to 4.0 GPA); latest yearly sessional average of 96%.
- **Coursework:** data structures, algorithms, OOP, software engineering, multi-threading, software architecture, computational statistics, honours linear algebra, and honours multivariable calculus (all courses received A+).

International Baccalaureate — *Diploma Course Program*　　　　　Sep. 2017 — May 2019
Mathematics HL (7/7), Physics SL (7/7), and World History HL (6/7).　　　*Calgary, AB*

WORK EXPERIENCE

VIPRE Security Group — *Email Security Back-End Development Team*　　Jan. 2021 — Present
Software Engineer Intern, in Test　　　　　　　　　　　　　*Burnaby, BC*
- Spearheaded design and development for back-end test automation framework in Python, fully automating REST API endpoint and SMTP mail server regression testing for verification on email processing services.
- Designed and automated unit tests with Python's Robot Framework and Jira Xray on critical production AWS Docker services and MySQL databases, processing over 1.2 billion emails monthly from 50 000 business customers.

TECHNICAL PROJECTS

Vaccelerator — *HackUCI 2021 Hackathon Group Project*　　　　　　　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 visualizing pandemic vulnerability by scraping 334 days of CDC data.
- Awarded second place for best overall project out of 89 total submissions and 336 participants.
- **Technologies Used:** *Python, Plotly, Pandas, HTML.*

Rubik's Cube Solver Neural Network — *Solo Project*　　　　　　　　Aug. 2020
- Implemented a feedforward deep neural network, solving any scrambled Rubik's cube with over 70% success rate.
- Developed a data generation algorithm to produce 8 million scramble patterns and corresponding solutions.
- **Technologies Used:** *Python, TensorFlow, Keras, NumPy, Matplotlib.*

Two-Dimensional Physics Engine — *Solo Academic Term Project*　　Jan. 2020 — Apr. 2020
- Engineered a GUI application using OOP principles and MVC patterns, simulating inelastic object collisions.
- Incorporated data persistence with CRUD data-parsing algorithms, allowing users to manage environment states.
- **Technologies Used:** *Java, JUnit, Java Swing.*

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.
- Roles include robot design, construction, and programming autonomous action in ROBOTC, a C-like language.

Volunteering and Community Service — *UNICEF Club, Volunteer Churchill Club*　　Sep. 2016 — Jun. 2019
- Over 50 hours of diversified volunteer experience across both organizations.
- Tutored for the *Coding Buddies* organization at the Calgary Public Library; taught grade school kids programming fundamentals with block-based languages such as Scratch and *code.org* projects.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, R, SQL (MySQL), x86 Assembly, HTML/CSS/JavaScript, LaTeX, Racket.
Frameworks: TensorFlow, Keras, Robot Framework, JUnit, Swing, Nomad.
Developer Tools: Git, Linux, Docker, Jira, Agile Development/Scrum, Vim.
Libraries: NumPy, Pandas, Matplotlib, Plotly.