Himmat Singh Tiwana

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EDUCATION

University of Victoria — Victoria, BC
B.Sc. in Computer Science (GPA: 3.7/4.0) — Dec. 2020

- Relevant Coursework: Operating Systems, Computer Networks, Object Oriented Development, Data Structures and Algorithms, Data Compression, Database Systems, Programming Languages

EXPERIENCE

University of Victoria — Victoria, BC
Teaching Assistant, Software Testing — Sept. 2020 - Dec. 2020

- Instructed undergraduate labs with 30 students on software testing methodologies using **Java** and **JUnit** demonstrating best practises for object oriented development and refactoring.
- Wrote **Bash** scripts to automate pulling student repositories from **GitLab** and setting up for marking, decreasing marking time by 30%

ACD Systems — Victoria, BC
Quality Assurance Analyst Co-op — May. 2019 - December 2019

- Tested the company's flagship product ACDSee Ultimate 2020 and assisted with design of new features
- Developed a tool with **JavaScript** and **CSS** to help test the new Facial-Recognition feature, removing the need for manual data entry, and reducing testing times by **50%**
- Automated environment configuration and clean up steps of the testing workflow using **Bash** scripts
- Co-ordinated with overseas teams in China and Japan to assure consistent product quality and image

Translink — New Westminster, BC
Student Software Test Analyst — May 2018 - Dec. 2018

- Automated testing of TransLink websites using **Selenium** and **C#** based **Atata** framework, improving on manual testing times by over 70%
- Tested performance of customer facing APIs using **Jmeter** and compiled data into insightful reports to business stakeholders and developers
- Lead the migration of the QA code repository from **SVN** to **Git** and conducted accompanying source control training sessions for the automation team.

PROJECTS

Vancouver Living Data Visualization — Jan. 2020 - Mar. 2020

- Developed an interactive visualization with **JavaScript**, JS library **D3**, **CSS** and **HTML** that displays income, demographic and living expense trends in Vancouver for the last two decades

MPEG Video Compressor — Jul. 2020 - Aug. 2020

- Developed a MPEG 1 style video compressor from scratch in **C++**, using techniques learnt as part of coursework including: Huffman Coding, Fourier Transform and Run Length Encoding.
- Optimized performance to achieve 16x compression ratio on RAW video as well as real time decompression

PROGRAMMING SKILLS

Languages: Python, Java, C++, C, C, SQL, JavaScript, Standard ML, Scheme(LISP)
Frameworks and Tools: Git, Selenium, Atata, D3, JUnit, Bash, Gradle