Tuan To

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Education

Concordia University Sept. 2019 – Dec. 2023
Bachelor of Computer Science *Current GPA: 3.91/4.20*
Oak Bay High School Aug. 2017 – June 2019
GPA: 3.7/4.0

Relevant Coursework

Grades: Exclusively A's on all listed, completed courses
Courses: Data Structures & Algorithms, Advanced Program Design with C++, Operating Systems, Databases, Compiler Design, Data Communications & Computer Networks, Computer Vision
Awards: Concordia Dean's List 2021

Skills

Languages: Java, Python, C/C++, SQL, JavaScript, C#, HTML/CSS
Tools: Git/GitHub, Unix Shell/Bash, Windows Batch, Jenkins, VS Code
Frameworks: React, Node.js, JUnit, Material-UI
Libraries: pandas, NumPy, SciPy, NLTK, OpenCV, Matplotlib
Project Tools: Scrum, DevOps, KanBan

Work Experience

Alstom | *TCMS Verification & Test Engineer Intern* May 2023 – Present
- Developed test cases to verify a new release of the train control monitoring system (TCMS)
- Developed a Python application to simulate a micro-controller that was missing from the test bench
- Automated 60 test cases using Python, Bash script, Batch file, and Squish
- Integrated CI/CD tools (Jenkins) to the project for automated test case execution and result report
- Led the test team and daily scrum meetings for 3 weeks; participated in Sprint planning and Retrospective

Bombardier Aerospace | *BIS Operations Architect Junior* Jan. 2022 – Apr. 2022
- Analyzed Bombardier's software lifecycle and built a report using Power BI
- Built a Machine Learning model to efficiently clean lifecycle data
- Deployed database monitoring software (Datadog) for production servers
- Coordinated between different teams and departments to solve problems for the project

Projects

Compiler Design | *Java, Assembly Code, UML, Git, VS Code* Jan. 2023 – Apr. 2023
- Developed a compiler that transforms human-readable code to assembly code
- Designed the lexical analyzer based on finite automata, syntax analyzer based on context-free grammar, and abstract tree generator using tree data structure
- Implemented an assembly code generator that can handle multidimensional arrays and object-oriented operations with inspiration from the C programming language

Video Streaming App | *JavaScript, Bash, DASH, Video Encoding, MySQL, PHP* Jan. 2023 – Apr. 2023
- Developed a web-based video streaming app using JavaScript and the LAMP stack (Linux, Apache, MySQL, PHP)
- Integrated DASH library to enable adaptive quality video streaming
- Utilized ffmpeg to encode video to h.264 and segment them
- Utilized bash script on the server side to compile a DASH playlist for video streaming

Workplace Broadcast Website | *JavaScript, React.js, Material UI* Jan. 2023
- In a team of 4, built an informational website for remote workers to catch up with fun events at work
- Designed and implemented all front-end elements using React.js and Material UI
- Learned how to develop front-end from scratch within 24 hours