

William Tjandra

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Technical Skills

Programming Languages: C++, C, C#, Java, JavaScript, Python, SQL

Operating Systems: Windows, Linux

IDEs and Software: Visual Studios 2019, Github, TFS, Google/Azure Cloud APIs

Work Experience

Computrol Systems, Burnaby - BC

Full-stack Web Developer using ASP.NET MVC January 1, 2022 - Present

- Demonstrated flexibility and adaptability to new environments by translating skills and knowledge from experience as a mobile developer into web development
- Implemented key features including page templates, self-registration, and automated scheduled exports which accelerated version release date and creating end-user satisfaction
- Created REST API with log4net integration for server-side log output, enhancing ASP.NET MVC web application by allowing efficient crash report viewing for the support team

Mobile Applications Developer using Xamarin March 3, 2021 - December 30, 2021

- Developed a cross-platform C# mobile application that communicated with a REST API and C++ firmware with microchip controllers to remotely operate fuel terminals.
- Created a mock Spring Boot server and automated tests for REST API calls to establish independent testing for mobile to back-end server communication
- Designed a communication system for terminals using bitwise operations through sockets and conducted tests with mock C++ firmware, ensuring robust functionality and reliability

Rostrum Medical innovations, Vancouver - BC

Managing TeamCity, CI Tool May 1, 2023 – August 30, 2023

- Worked with Linux and Windows VMs using VirtualBox to setup a TeamCity CI Tool from scratch and implemented a script to automatically run the TeamCity on system startup
- Developed Bash and Shell scripts for automated compilation and building of software and firmware, streamlining the process for running automated tests and static analysis
- Implemented methods to log test results from GTest and macro-based testing for both firmware and software components which could be further analyzed in the GUI

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Developing Tests

January 1, 2023 – April, 2023

- Utilized GTest for C++ algorithm testing, developed Macros for firmware testing, and implemented automated Misra-C and cppcheck scripts for enhanced code quality assurance
- Developed Octave and Python scripts for advanced algorithm testing and sensor value analysis, ensuring comprehensive evaluation and optimization
- Worked with Ndir Sensors, SPI/I2C/UART ports, and microchip microcontrollers combined with software/firmware configs to develop comprehensive hardware system tests

Software Developer using xWidgets and MPLabs

January 1, 2023 – August 30, 2023

- Developed C++ software applications using xWidgets for intuitive user interfaces and creating efficient C firmware code utilizing MPLab for embedded systems.
- Identified and resolved a critical bug, caused by packet losses in communication and leading to system malfunction, in a small-time frame which restored the system to full functionality
- Developed an optimized Levenberg-Marquardt algorithm for neural-network parameter fitting, reducing iterations by 97% compared to initial method of Gradient Descent

Education:

Simon Fraser University, Burnaby - BC

September 2019 – April 2024

BASc: Computer Science – Software Systems

Minor: Mathematics

Notable Achievements

Dean's Honour Roll – SFU Software Systems

September 2020 – April 2024

- Awarded to students with a term grade point average (TGPA) of 3.50 or higher after completion of a minimum of 30 units at SFU

Hobbies and Interest

Joining Hackathons: I love cooperating with my friends or teammates and competing with other people which tests your creativity and ability. Learning new topics along the way is also an additional benefit.

Playing Games: I love playing competitive games as I enjoy learning and seeing myself slowly improve my analytical and problem solving. Seeing improvement is my motivation for everyday life.