WILLIAM NATHANIEL TJANDRA

Software Developer

@ williamtj2001@gmail.com   📞 +1 778-681-1579   📍 Langley, BC

in william-tjandra-a88422194   wntjandra   🌐 wntjandra.github.io/portfolio/

TECH STACK

C#   C   C++   Java

Javascript   Python

SQL   HTML/CSS

Lua   Bash   Shell

asp.net   xWidget

MPLabs   REST API

Xamarin   Node

React   MERN

SpringBoot

TFS   Github

Visual Studios 2019

MSSQL   Jira

ECOS (Linux)

Ubuntu (Linux)

Debian (Linux)

Windows 10 or 11

Android   iOS

EDUCATION

Simon Fraser University

📍 Sept 2019 - April 2024

📅 Burnaby, BC

- Major: Software Systems
- Minor: Mathematics
- GPA: 3.61 (Distinction)
- Dean's Honour Roll

LANGUAGES

Lang 1: English

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Lang 2: Indonesian

ABOUT ME

Software Developer with over 3 years of experience in web and mobile development. Skilled in creating user-centric applications and implementing robust backend systems. Looking to leverage my expertise in a dynamic tech company that values innovation and continuous improvement.

EXPERIENCE

Software Developer | Computrol Systems

📅 Jan 2022 – Present   📍 Burnaby, BC

Asp.net Full Stack Web Developer

- Implemented key features such as page templates, self-registration, and automated scheduled exports, accelerating the release date and enhancing 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.
- Developed and automated RDLC reports with optimized MSSQL queries, improving data retrieval times and report performance.

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Firmware Development in ECOS Environment

- Independently resolved critical bugs in legacy C code, ensuring timely release of the project by meeting the deadline.
- Implemented clear communication protocols to ensure comprehensive tracking of tasks, facilitating precise identification and resolution of bugs within a procedural framework.
- Reconstructed vital documentation, effectively identifying and resolving the elusive bugs that initially impeded progress.

Junior Software Developer | Computrol Systems

📅 Mar 2021 – Dec 2021   📍 Burnaby, BC

Xamarin Mobile Developer

- 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.

Software Developer | Rostrum Medical Innovations

📅 Jan 2023 – Sept 2023   📍 Vancouver, BC

Managing TeamCity, CI Tool

- 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, Shell, and 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.
- Developed comprehensive documentation and coached new software developers on using the CI tool, and automating the software or firmware building process.

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Software & Firmware Test Developer

- 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.

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Software & Firmware Developer

- 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%.

PROJECTS

Fatal Enterprises | 🌐

📅 Aug 2023 – April 2024

- Create horror genre roblox game with AI pathfinding, and procedural generated content.
- Tutored team members to use blender and native roblox tools to create map and mobs while solely developing generated content

SnapDuck | 🐙 | 🐙

📅 Feb 2022

- Created a motion tracking Flutter app that would create a duck face filter based on a picture of a duck.
- Made use of OpenCV library to create motion tracking feature, and used TensorFlow to create model of duck filter based on duck photo taken by the user.
- Ranked 4th place in a fast paced duck-themed FallHacks 2022 hackathon competition that lasted one day.