ENOCH TSANG

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(403) 991-7202

Brampton ON, Canada

Software developer passionate about producing well-tested software that creates real-world value with experience in embedded systems, web development, desktop applications, and highly-regulated environments.

TECHNICAL SKILLS

Programming Languages	*Proficient in -* C, C++, Golang, Python, Bash, CMake, QML, HTML, CSS *Prior experience in -* C#, Java, Javascript, Typescript, SQL
Frameworks and Major Libraries	Qt, Unity2D, OpenGL, GoogleTest, Vue, Node.js, FreeRTOS, Catch2
Tools	Continuous Integration Systems - TeamCity, Bamboo, Jenkins, Travis CI Virtualization Platforms - VirtualBox, ESXi, Docker
Operating Systems	Windows, Linux (Debian and Fedora based systems)

WORK EXPERIENCE

MDA *(Space Robotics)*

Int. Software Developer
Apr 2022 - Current

- Planned, designed, and wrote embedded C/C++ code in an ATDD process for the CanadaArm3, to be used in the new lunar space station
- Took the role of scrum master and coordinated work between domain knowledge experts, architects, developers, product owners, and project managers
- Part of the C++ advisory committee that provided a list of best practices for mission-critical software

Circle Cardiovascular Imaging Inc. *(ML-Powered Healthcare Solutions)*

Software Developer
Jan 2019 - Mar 2022

- Developed market-leading cardiovascular post-processing software for viewing and analyzing MRI/CT images in an agile environment using C++ with Qt
- Took a leadership position as scrum master for a very experienced team of 8 that migrated the core product from a desktop application to a web service
- Redesigned an interaction system from a single class of over 10 000 lines of code to a reusable framework with no classes larger than 500 lines of code
- Integrated the GoogleTest framework into the main product's codebase from proposal to company-wide adoption (~50 developers) which resulted in unit tests being a regular part of every check-in, compared to unit tests previously only written before release
- Initiated and lead the migration from Surround to Bitbucket that has been standardized across the company, resulting in asynchronous code reviews and traceability requirements for each check-in

Calgary Scientific Inc. *(Cloud-Based Healthcare Solutions)*

Professional Services Associate
May 2016 - May 2018

- Provided DevOps level support for a cloud-based medical image viewer on Windows and RHEL servers using Golang, ESXi, AWS, and Docker
- Lead development for a Managed Services offering written in Golang as a new product for the company
- Revamped how demo kits for the sales team were managed by moving the GPU application into a docker container, reducing maintenance times and improving reliability

PROJECT EXPERIENCE

Student Organization for Aerospace Research

<div align="right">Software Lead
<i>Sept 2017 - Aug 2018</i></div>

- Managed all software for a 30 000 ft hybrid rocket that competed in the Spaceport America Cup 2018
- Introduced standard software practices such as version control, code reviews, and documentation that are still in practice
- Lead development for the avionics systems that were written in C using FreeRTOS responsible for, recovery initiation, data logging, telemetry, and engine control
- Lead development for the launch systems that were written in Golang and VueJS and were responsible for launch sequencing, automated oxidizer tank filling, oxidizer temperature regulation, and reporting
- *https://github.com/StudentOrganisationForAerospaceResearch*

University of Calgary Solar Car Team

<div align="right">Software Technical Lead
<i>Sept 2016 - Aug 2018</i></div>

- Architected the software for the 5th Generation Schulich Elysia Solar Car that won 1st place in its class in the 2019 Formula Sun Grand Prix
- Managed and wrote the software for relaying data all the way from embedded systems communicating via CAN to cloud accessible telemetry
- Built a software culture from the ground up that set a standard for version control, continuous integration, testing, and in-depth code reviews centered around mentorship
- *https://github.com/UCSolarCarTeam*

Wiener Takes All

<div align="right">Developer
<i>Jan 2017 - April 2018</i></div>

- Developed a 3D driving game rendered using OpenGL in C++ with a team of 5 students that utilized Nvidia's open source PhysX library
- Lead development for the physics system that used Nvidia's open source PhysX library
- *https://github.com/WienerTakesAll/WienerTakesAll*

EDUCATION

Bachelor of Science in Software Engineering

<div align="right"><i>Graduated December 2018</i></div>

Schulich School of Engineering, University of Calgary

REFERENCES

Aesha Patel

<div align="right">Software Team Lead
<i>MDA</i></div>

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Derek Hann

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