Matthew do Santos-Zounon

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Richmond Hill, ON

EXPERIENCE

Software Integration Engineer
Rivian — Rivian and Volkswagen Group Technologies

Sep 2024 - Apr 2025

Vancouver, BC

- Led sub-team of 4 to ship mobile release v2.21, aligning PM, Design, & Devs through complete release cycle
- Developed automated UI and API tests using **Python's PyTest** and **Appium** integrated with **GitHub Actions** to run on simulated and test-bench vehicles
- Mentored junior interns teaching test processes, development skills, and automation fundamentals

Quality Assurance Engineer
Operto Guest Technologies

May 2023 – Dec 2023

Vancouver, BC

- Built a 200 test case E2E UI test suite in **TypeScript** using **Playwright**, covering new features and 85% of the most common user flows identified through **FullStory**
- Shortened the Dev-QA loop by integrating the test suite into **CI/CD**, catching regressions before manual verification
- Led cross-team bug triage aligning on severity and ownership, removing blockers for more efficient feature release

Software Systems Engineer
Gatekeeper Systems Inc.

May 2022 – Dec 2022

Abbotsford, BC

- Automated 150 manual test cases by reverse engineering proprietary **HTTPS** protocol from PCAPs (**Wireshark, tcpdump**) and developing a Python **scapy** tool to emulate device traffic, eliminating the need for physical hardware
- Performed static and dynamic firmware analysis on embedded Linux (**MIPS, BusyBox, SquashFS**) by extracting images with **binwalk**, analyzing with **radare2, Ghidra**, and demonstrated PoC user-space emulation with **QEMU**
- Discovered a security vulnerability and developed a scanning tool now standard in the regression suite enabling QA to efficiently verify the fix
- Developed concurrent network and log analysis tool which report anomalous device behavior; now standard in QA toolkit

EXTRA-CURRICULAR

Software Team Lead
SFU Autonomous Robot Soccer Club

Jan 2023 – Sep 2024

Burnaby, BC

- Led software team in design and development of autonomous robot software in **C++** using **Qt6** and **Protobuf**
- Created a safe and productive environment where students were empowered to make a memorable impact
- Hosted weekly software team meetings and collaborated across sub-teams in weekly admin meetings
- Owned recruitment by reviewing applications, conducting technical interviews, and onboarding new members
- Collaborated with electrical, firmware, and mechanical teams to build robots for RoboCup

CURRICULAR PROJECTS

Parabix ARM | *C++, SIMD, ARM NEON & SVE intrinsics* — Compiler Technology - CMPT 980

- Implemented 67% improvement in performance of Parabix (**parallel computing**) on **AArch64** CPUs using **ARM NEON** and **SVE ISA**s
- Proved performance in **QEMU** emulated environment and confirmed results on Raspberry Pi hardware
- Technical Talk Slides

EDUCATION

Simon Fraser University
Bachelor of Science in Computer Science

Burnaby, BC

Grad. Sep 2025