Hunter Whyte

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Work Experience

Garmin Canada - Software Developer I ● August 2024-May 2025 - **Software Developer II** ● June 2025-present

- Embedded C/C++ firmware development targeting baremetal and RTOS-based environments.
- Contributed to low level core platform technology used across multiple products.
- Worked as part of a team responsible for bootloader development and OTA update support.
- Worked closely with vendors to bring up new SoC platforms for use in Garmin products.
- Created and maintained automated regression tests that run on hardware as part of CI.

NerveX Neurotechnologies - Embedded Software Developer ● November 2023-March 2025

- Embedded C/C++ firmware development for low-power wearables.
- Implemented signal processing pipelines for biometrics on Cortex-M MCUs.
- Integrated peripherals including BLE, I2C, SPI, UART, PDM audio, NAND flash.
- PCB layout, SMT assembly, hardware debugging, and board bringup.

Garmin Canada - Embedded Software Engineering Intern ● September 2021-August 2022

- Developed embedded C/C++ firmware for low-power wireless devices.
- Worked with vendors on low-level integration of wireless protocols into Garmin products.
- Gained experience with BLE, WiFi, Bluetooth Classic, and ANT.
- Debugged hardware issues using spectrum analyzers, oscilloscopes, and logic analyzers.

CNH Industrial - Software Engineering Intern ● May 2021-August 2021

- Developed embedded C firmware for agricultural equipment.
- Created graphical desktop applications with C# and WinForms.

Education

Computer Engineering - Bachelor of Science in Engineering with Great Distinction *(88% program avg.)*

University of Saskatchewan ● September 2018 - April 2023

Awards for academic achievement:

Douglas Durie Memorial Scholarship Fall 2020, Fall 2022 ● *Agra Memorial Scholarship* Fall 2020 ● *Slapkauskas Scholarship in Engineering* Winter 2021 ● *Dean's Honour Roll* 2019, 2020, 2021, 2023.

Personal Projects ● huntergw.com

Jump Tracker ● huntergw.com/jumptracker ● June 2025

- Low power wearable device that tracks jump height and frequency for athletes.
- Created algorithms to detect flight time, ground contact time, and other metrics from accelerometer output.
- Designed, assembled, debugged form factor prototypes.
- Developed embedded C/C++ firmware with Zephyr RTOS integrating I2C, BLE, and NOR flash.

Wireless LED Bracelet ● github.com/HunterWhyte/WirelessLEDBracelet ● March 2023

- Wirelessly controlled light-up bracelet for use at concerts and live events.
- Designed PCB around nRF52 SoC and wrote baremetal firmware integrating UART, I2C, BLE and NFC.

Other Projects

- Audio visualization library for Linux, Windows, and web: github.com/HunterWhyte/jumaudio
- Cross platform deterministic continuous 2D collision detection in C: huntergw.com/physics
- 2D graphics framework using OpenGL: huntergw.com

References available upon request