

NEO HYLDELUND

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EDUCATION

Simon Fraser University

Bachelor of Science, Computing Science

Data Structures & Algorithms, Software Engineering, AI & ML

British Columbia, Canada

Expected Fall 2028

EXPERIENCE

Webb Electronics Inc | Software Developer Co-op | Burnaby, BC

Sep. 2025 - May. 2026

Rust, C/C++, TypeScript | Embedded Firmware, Real-time Systems, Full-stack Web

- Engineered microsecond-accurate timing-critical firmware in Rust using the Embassy async framework, meeting strict real-time hardware requirements for a next-generation product.
- Migrated multiple legacy products from C/C++ to async Rust, improving memory safety, concurrency, and long-term maintainability across embedded targets.
- Implemented CAN bus communication protocol in Rust firmware, enabling reliable real-time data exchange between embedded nodes and system components.
- Developed an e-commerce web application using Next.js and React, implementing a secure server-verified authorization flow. Led presentation on the MVP to clients.

PROJECTS

Personal Portfolio | [GitHub](#) | [Website](#) | NextJS / TypeScript / TailwindCSS

Jun. 2025 - Present

Clean, modern, and mobile-optimized personal site showcasing projects and code samples.

- Accelerated build time by 60% by implementing dynamic imports and static route generation in Next.js, streamlining deployment and dev workflows.

Model Renderer | [GitHub](#) | C++ / OpenGL / GLM / GLTF

Jul. 2025 - Sep. 2025

Graphics rendering engine for loading glTF 3D models.

- Developed a C++ rendering engine featuring mesh, texture, and model loading
- Optimized OpenGL draw calls and implemented batch rendering, reducing frame time variance by 32%, which significantly improved overall smoothness and responsiveness.
- Built a glTF mesh loader using nlohmann::json, enabling support for 30+ unique textured assets with efficient handling of transformations, materials, and buffers.

Grow-the-Hoard | [GitHub](#) | Java / Maven / OpenGL / LDK / JUnit

Jan. 2025 - Mar. 2025

Collaborated in a team of 4 to develop a cohesive and complete 2D videogame.

- Wrote character class core logic and pathfinding using A*.
- Achieved 100% unit test coverage with JaCoCo; CI-tested using GitHub Actions.
- Presented to a class of 80+ with live gameplay demo and source code walkthrough.

VRAMD | [GitHub](#) | Rust / Ollama / HTTP / Local LLM

Jul. 2026 - Present

Async concurrency scheduler for local AI sessions.

- Built an http layer above Ollama's API to solve concurrent AI sessions requesting GPU use.
- Currently limited to FIFO, but in the future plan to use Linux inspired fair EEVDF principles based on projected token use.

TECHNICAL SKILLS

Languages: C/C++, Rust, JavaScript, TypeScript, Python, Java, SQL

Frameworks & Libraries: React, NextJS, NodeJS, Express, TailwindCSS

Tools: Git, Postman, VSCode, SSH, Embassy-rs, Docker,

Protocols: CAN, HTTP/S, SPI, UART