

NORMAN BUI

Ottawa, ON | +1 613-983-3217 | normanbui23@gmail.com | linkedin.com/in/nbui23 | github.com/nbui23

EDUCATION

Carleton University | *Bachelor of Computer Science (Honours), 3.9/4.0 GPA* Graduated Spring 2026

- Coursework: Data Structures & Algorithms, Operating Systems, OOP, Programming Paradigms, DBMS, Web Development

EXPERIENCE

Electronic Arts (EA) | *Software Developer Intern* May 2025 - Aug 2025

- Improved CI/CD load-test reliability from **35% to 100%** by fixing auth failures and unstable workflows
- Integrated **10+** game features into load tests to keep high-traffic performance coverage accurate
- Debugged service auth and environment setup failures across CI runners and load-test infrastructure
- Reviewed automated game-testing architecture and recommended soak-test reliability improvements

Autodesk | *Software Developer Intern* Jan 2025 - Apr 2025

- Built TypeScript/Java validation and repair infrastructure for Fusion manufacturing data, including an **O(n)** repair algorithm that improved throughput **8x**
- Deployed GraphQL validation and repair endpoints with **100%** Mocha, Chai, and Sinon coverage
- Fixed permission and error-handling gaps in sensitive manufacturing data workflows
- Refactored part-number assignment for edge cases and configuration persistence

Kongsberg Geospatial | *Software Developer Intern* May 2024 - Aug 2024

- Built client-facing C++/Qt geospatial demos for aviation, defense, and government use cases
- Integrated LiDAR, WMTS, and S-57 GIS data into real-time mapping and tracking workflows
- Developed automated airspace classification framework, removing manual data categorization
- Optimized render pipeline to **consistent 60+ FPS** and automated terrain processing by more than **40%**

NAV CANADA | *Software Developer Intern* May 2023 - Aug 2023

- Optimized C++/Qt GIS tool, reducing storage **60%** and improving analysis speed **30%**
- Fixed air traffic control rendering bugs, improving frame rate by **16%**
- Automated network setup with PowerShell, reducing manual configuration by **95%+**
- Improved geospatial data import and validation workflows for internal air-traffic tooling

PROJECTS

Latch | *Electron, TypeScript, Swift, Chrome Extension, Native Messaging* github.com/nbui23/latch

- Built local-first macOS focus blocker with Electron UI, privileged helper, Chromium extension, and native messaging
- Implemented **6-state** session machine covering **4** crash windows, hosts markers, and helper availability handling
- Packaged **4-part** macOS release with app, helper, extension bundle, and native messaging host
- Validated **7-row** recovery table plus manifest repair, helper install state, and blocked-page synchronization paths

CruxOS | *Next.js, TypeScript, Prisma, SQLite, Expo, React Native* github.com/nbui23/cruxos

- Built **2-client** bouldering product with Expo session capture, Next.js dashboard, and shared TypeScript logic
- Implemented deterministic insight engine translating **3** signal groups into weekly recommendations
- Designed shared auth, Next.js API routes, and Prisma/SQLite persistence for mobile/web workflows
- Wrote tests around insight logic and API flows to protect **2-client** data contracts

SKILLS

Languages: Python, TypeScript, JavaScript, C++, C#, Kotlin, Java, SQL, HTML/CSS, PHP

Frameworks & Runtimes: Next.js, Node.js, Express.js, Electron, Qt, React Native, Expo, Spring Boot, Flask, Streamlit, .NET, ASP.NET

AI / ML / Data: LLMs, RAG, scikit-learn, pandas, NumPy, PyTorch

Databases & APIs: PostgreSQL, MySQL, SQLite, MongoDB, Firebase, Neo4j, Prisma, GraphQL

Tools & Practices: Git, AWS, CI/CD, Docker, Docker Compose, Ubuntu, TDD, pytest, Mocha, Chai, Sinon, unittest, BS4, Selenium, Cucumber, PowerShell, Postman, Agile, SDLC

Spoken Languages: English, French, Vietnamese