

# NORMAN BUI

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## EDUCATION

**Carleton University** | *Bachelor of Computer Science (Honours), 3.9/4.0 GPA* Graduated Spring 2026  
• Coursework: Quality Assurance, Operating Systems, Data Structures & Algorithms, Database Management Systems, 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  
• Developed load, soak, and regression plans for live game services across **10+** feature integrations  
• Triaged load-test failures by isolating auth, environment, and feature regressions in CI  
• Documented reproducible failure cases and validation notes for automated playtesting workflows

**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  
• Expanded endpoint test cases for malformed inputs, authorization failures, and repair edge cases

**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  
• Validated geospatial ingestion/rendering edge cases across LiDAR, WMTS, and S-57 demos  
• Created repeatable demo checks for map-layer loading, object tracking, and rendering performance

**Health Canada** | *Data Scientist Intern* Sep 2023 - Dec 2023  
• Architected TDD scraping framework with unittest, expanding sources by **113%** with **100%** coverage  
• Validated scraper reliability across schema changes and fault-tolerant parsing paths  
• Rebuilt chemical search with BS4/lxml error handling, raising query success by **20%**

**Correctional Service Canada** | *Software Developer Intern* May 2022 - Apr 2023  
• Improved C# and .NET WET accessibility for WCAG 2.1 Level AA compliance  
• Resolved ASP.NET UI defects in victim services app for **100+** daily users  
• Supported QA validation for accessible government web workflows  
• Verified keyboard navigation, screen-reader labels, and responsive UI behavior after fixes

## PROJECTS

**Orbital Refueling Simulator** | *Python, Streamlit, scikit-learn, pytest* github.com/nbui23/orbital-refueling  
• Modeled **410-second** refueling mission across **9** phases, **9** anomaly classes, and deterministic generation  
• Separated hard-limit engineering rules from **9** phase-aware IsolationForest drift models  
• Wrote pytest coverage across **5** surfaces: telemetry generation, rules, scoring, phase handling, and explanations

**CruxOS** | *Next.js, TypeScript, Prisma, SQLite, Expo, React Native* github.com/nbui23/cruxos  
• Built **2-client** CruxOS bouldering app with Expo session capture and Next.js analysis dashboard  
• Implemented deterministic insight engine translating **3** signal groups into training and recovery recommendations  
• Wrote unit and API integration tests for insight logic, auth flows, and Prisma/SQLite persistence  
• Covered typed data contracts across mobile/web capture, review, and SQLite persistence

## SKILLS

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

**Frameworks & Runtimes:** Node.js, Express.js, Qt, Spring Boot, Flask, Streamlit, .NET, ASP.NET

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

**Databases & APIs:** PostgreSQL, MySQL, SQLite, MongoDB, Firebase, Neo4j, 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