William Chenyin

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EDUCATION

University of Waterloo — Waterloo, ON
Bachelor of Computer Science (Honours), Co-operative Program — GPA: 4.0/4.0 Sep. 2025 – Apr. 2030 (expected)
- President's Scholarship w/ Distinction, BC Provincial District/Authority Scholarship

PROJECTS

HardHaq '25 🔗 | *Python, ANSYS HFSS* Nov. 2025
- **Won first place** among **20+ teams** at Canada's only quantum hardware hackathon across North America
- Developed **Python scripts** to automate ANSYS HFSS simulations and extract Maxwell capacitance matrices
- Conducted Finite Element Analysis to optimize coupling strength of **35.8 MHz** against **900 MHz** detuning
- Presented chip architecture via technical presentation to judges and quantum hardware experts

Clothing E-Commerce Platform 🌐 Demo | *Next.js, React, Stripe, PayPal* Jan. 2026 – Present
- Built a **full-stack online store** with Next.js and React featuring dynamic routing and server-side rendering
- Integrated **Stripe and PayPal** payment into the application, using NextAuth for secure transactions
- Developed responsive interfaces with **React** components, increasing user-friendliness

UmbrellaShare 🔗 | *Rust, Java* Oct. 2025
- **Led a team of four** to win third place among **24 teams** at the UN-Habitat Quality of Life Hackathon
- Built a city-embedded umbrella sharing service aligned with **UN-Habitat** urban mobility initiatives
- Developed **Rust backend** on a VPS with real-time communication, paired with a **Java Android** frontend
- Implemented UWaterloo ID scanner for user authentication for up to **40,000+ students**
- Presented **demo scanner** demonstrating project vision and scalability via video pitch and PowerPoint

Flask Authentication System 🔗 | *Flask, MySQL, HTML/CSS, JavaScript* Dec. 2025 – Present
- Built a **Flask web application** as a template for future user-based projects
- Implemented user authentication and authorization with token-based sessions via headers and cookies
- Designed **MySQL** database schema with **CRUD operations** for user management and registration/login

RougeRogue 🔗 | *C#, RogueSharp, RLNET* Sep. 2025 – Present
- Developing a **roguelike dungeon crawler** in C# using the RogueSharp library for core game systems
- Implementing **randomized dungeon generation** with hallways connecting rooms on map
- Implemented **field-of-view** and line-of-sight systems for monster awareness and interactability
- Creating character systems for player stats, **monster behaviors**, and health tracking

EXPERIENCE

Sales Associate Oct. 2023 – Oct. 2024
Boathouse Retail Store *Coquitlam, BC*
- Assisted customers in finding products, offering recommendations to enhance their shopping experience
- Processed **cash, credit, and debit** transactions accurately, including security tag removal

Math Tutor Jun. 2023 – Aug. 2023
RootMaths Math Tutoring *Coquitlam, BC*
- Tutored children ages 8–10 **in-person** a group of 3, providing guidance and answering questions
- Built student confidence by explaining mathematical concepts in an accessible, engaging way

SKILLS

Languages: Python, Java, TypeScript, JavaScript, HTML/CSS, C, C++, Rust, C#, Racket
Frameworks/Libraries: React, Next.js, Node.js, Flask, Redux, Android SDK, RogueSharp, NextAuth, Tailwind CSS
Developer Tools: Git, VS Code, MySQL, PostgreSQL, Prisma ORM, Visual Studio, Eclipse, Linux, ANSYS HFSS, Jest
APIs/Services: Stripe, PayPal, Google Gemini API, REST APIs, gRPC, WebSocket
Schema Validation: Zod
Interests: Board games, Pickleball Club, Water Boys Acapella Member