

Education

Systems Design Engineering (Bachelors of Applied Science)

2025 - 2030

University of Waterloo

- Relevant Courses: Communications in Systems Design Engineering - Visualization, Intro to Design

Skills

- **Programming Languages:** Python, JavaScript, TypeScript, C++ , Java, Go
- **Tools & Frameworks:** Git, GitHub, MongoDB, Express, React, Node.js, REST APIS, HTML/CSS

Projects

Interactive Portfolio Website – Next.js, React, SVG

- Dveloped a single-page portfolio with hand-drawn desk illustration as interactive navigation interface
- Implemented pan/zoom canvas interactions using react-zoom-pan-pinch library
- Built with Next.js 15 App Router, React 19, CSS Modules, and Tailwind CSS for modern web standards
- Engineered clickable SVG hotspots triggering contextual popups linking to projects, resume, etc

AI-Powered Chatbot with LangChain – Python, LangChain

- Following production-grade tutorial to build conversational AI system using LangChain framework
- Implementing RAG (Retrieval-Augmented Generation) architecture for context-aware responses
- Developing FastAPI backend for async request handling and model integration
- Learning prompt engineering and chain composition for complex conversation flows
- Exploring deployment strategies for scalable chatbot applications

Interpreter in Go – Go, Systems Programming

- Implemented a full interpreter for the Monkey language in Go, including lexer, parser, and AST
- Applied compiler-design principles to optimize recursive evaluation and memory efficiency
- Demonstrated strong debugging skills and structured, maintainable code development

Geometry Dash – Java Game

- Built a 2D platformer using Java Swing, implementing physics-based movement and collision detection.
- Engineered mechanical systems simulation including gravity, friction, and obstacle interactions.
- Distributed to 100 players and collected feedback that guided two gameplay updates.

Experience

Web Developer - Generis

Jan 2026 - Present

- Managing 24 client websites through WordPress, ensuring uptime and performance optimization
- Developing AI chatbot using machine learning frameworks to improve customer engagement
- Implementing automation workflows with ML to streamline content management processes
- Building React components and utilizing Git for version control in collaborative development environment

Web Developer - School Newspaper

Sept 2023 – Jun 2024

- Collaborated with cross-functional team through GitHub, managing version control and documentation.
- Increased site traffic by 60%, reaching 1,500 unique monthly visitors.
- Mentored junior developers in modern web development techniques.

Awards

- Canadian Computing Contest Honour Roll: Top **2%** of 6242 contestants.
- Canadian Senior Math Contest Honour Roll: Top **1%** of 16805 students.
- Schulich Leader Nominee: Canada's premier STEM scholarship recognizing innovation and leadership.
- President's Scholarship – University of Waterloo: Academic excellence - Admission Average: **97%**.