

## Education

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**Systems Design Engineering (Bachelors of Applied Science)**

2025 - 2030

*University of Waterloo*

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

## Skills

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- **Programming Languages:** Python, JavaScript, TypeScript, C++, Java, Go

- **Tools & Frameworks:** Git, GitHub, MongoDB, Express, React, Node.js, REST APIs, HTML/CSS

## Projects

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**Interactive Portfolio Website – Next.js, React, SVG**

- Developed 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

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**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

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- 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%.