

# Daniel Zhao

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## EDUCATION

### University of Waterloo

Honours Bachelor of Computer Science (Co-op)

GPA: 4.00

Sep. 2024 – Apr. 2029

## TECHNICAL SKILLS

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

**Technologies:** React, React Native, Angular, Next.js, Express.js, Node.js, Flask, Django, Tailwind CSS, Unity

**Tools:** Git, Bash, Linux, Docker, Postman, Figma, MongoDB, PostgreSQL, Firebase, AWS, Vercel, Ollama

## EXPERIENCE

### Cineplex Digital Media

Sep. 2025 – Dec. 2025

Software Developer

Waterloo, ON

- Developing an interactive dashboard using **React**, **Express.js**, and **PostgreSQL**, implementing **RESTful APIs** and building responsive UIs.
- Creating **CI/CD** workflows with automated builds and tests, streamlining deployment and improving reliability.
- Designing data pipelines in **Python** with **SQLite**, performing data modeling and analysis to evaluate advertising effectiveness for digital signage solutions.

### Waterloo Aerial Robotics Group

May. 2025 – Aug. 2025

Autonomy Software Developer

Waterloo, ON

- Developed autonomous navigation algorithms in **Python**, enabling drones to identify and land on targets with under **2cm** precision.
- Implemented object detection with **Ultralytics YOLOv8** and **OpenCV** for real-time landing pad recognition, achieving **95%** detection reliability.

### Waterloo Reality Labs

Sep. 2024 – Apr. 2025

Software Developer

Waterloo, ON

- Created a Universal Text Prompter in **Unity** using **C#**, enabling real-time interaction with AI-driven text representation in VR to improve accessibility by providing contextual feedback.
- Enabled real-time model comparison across **4+ LLM backends** (Llama 3, DeepSeek, ChatGPT, Gemini), allowing users switch between local models (**Ollama**) or cloud-based APIs in under **1 second** through a unified interface.
- Integrated voice interaction with LLMs by implementing **OpenAI Whisper**, reducing user input time by **5x**.

## PROJECTS

### 🌐 Personal Website | Next.js, Tailwind CSS, TypeScript

- Built a responsive personal website using **Next.js** and **Tailwind CSS** to showcase projects and skills.
- Optimized for performance and **SEO** with static generation and semantic design, improving visibility.

### 🎹 ChordCraft | JavaScript, React, Firebase, ABCJS

- Developed a **React** app with an interactive piano interface that renders sheet music in real time using **ABCJS**.
- Used **Firebase** to support user authentication and persistent compositions for **20+** trial users.

### 📦 Terra | C#, Unity, AR Foundation, ARCore

- Created an **AR mobile app** that allows users to place 3D blocks in physical spaces using **Unity** and **ARCore**.
- Implemented **raycasting** and touch controls improving object placement precision by **70%**.

### ♻️ TrashMap | Python, Google Cloud Vision API, OpenAI API, Google Maps Platform

- Developed a web app that classifies waste with **GCV API** and suggests disposal guidance using **OpenAI API**.
- Mapped **100+** disposal locations using **Google Maps Platform**, reducing user search time by **50%**.