

Dundee Zhang

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EDUCATION

University of Waterloo

Bachelor's of Computer Science

Waterloo, ON
Sep 2024 – Apr 2028

- **Relevant Courses:** Algorithm Design and Data Abstraction, Object Orientated Programming, Computational Logic.
- **Awards:** Aivars Petersons Memorial Award: Awarded to an outstanding incoming Computer Science student.

TECHNICAL SKILLS

Languages: Bash, C, C++, Go, HTML/CSS, JavaScript, Python, Racket, TypeScript

Frameworks: Bootstrap, FastAPI, Flask, Next.js, React, SQLAlchemy, TailwindCSS, Three.js

Tools: AWS, Docker, GCP, Git, Github Actions, Grafana, Node.js, PGAdmin, PostgreSQL, Supabase, Tailwind, Vercel, Vim

EXPERIENCE

Software Engineer

CodeRabbit

January 2026 – Present
San Francisco, CA

- Upgraded agent contextual tools, boosting C, C++ and GoLang error detection accuracy and coverage by **500%**.
- Enhanced GenAI evaluation pipeline by introducing dynamically defined benchmarks for more flexible model assessment.
- Engineered high-quality benchmark datasets that stabilized agentic behavior and increased result consistency by **100%**.

Software Developer

airfairness

May 2025 – Oct 2025
Kitchener, ON

- Designed the key product Human Computer Interaction (HCI), improving modularity and boosting claim speed by **120%**.
- Built and linked frontend and backend functions, streamlining service integration and reducing error claims by **20%**.
- Improved product UX by implementing **WCAG-compliant accessibility standards** and running accessibility audits.
- Streamlined the claims process to eliminate all erroneous customer submissions, improving claim accuracy by **100%**.

President

University of Waterloo Computer Science Club

May 2025 – Aug 2025
Waterloo, ON

- Organized a team of **70+ people**, overseeing club operations, strategic planning, and campus-wide initiatives.
- Assisted cross-functional teams with technical, logistical, and outreach tasks to maintain operational efficiency.

Cofounder and Mentor

NRGHacks

Aug 2023 – Aug 2024
Aurora, ON

- Mentored **100+** students in JavaScript, TypeScript and Python with React and Flask frameworks.
- Assisted in integrating Language Models and Computer Vision into projects via RESTful APIs by delivering tutorials.

PROJECTS

NanoWorks - SolidWorks for DNA Origami | *TypeScript, Python, Next.js, TailwindCSS, FastAPI, Three.js*

- Developed interactive 3D DNA visualizations using Three.js, enhancing scientific data representation.
- Bridged frontend and backend systems by integrating middleware, enabling seamless data flow and user interaction.
- Implemented backend API, enabling frontend components to access and display dynamic backend output.

YangNews - Positive News App | *AWS, Python, FastAPI, React, TypeScript, Supabase, TailwindCSS*

- Deployed the backend on an **AWS EC2 instance**, ensuring fast and reliable service delivery with scalable infrastructure.
- Built high-performance RESTful APIs using FastAPI, enabling efficient news retrieval and filtering with low latency.
- Engineered a **SQL schema** to track unique articles and support crowd-sourced contributions with data integrity.

Aura - AI Professional Career Assistant | *Python, JavaScript, Flask, Firebase, HTML, CSS, OpenAI*

- Engineered scalable RESTful APIs using Flask to enable efficient client-server communication and data exchange.
- Integrated AI into a professional career development toolkit using Flask and JavaScript in backend.
- Leveraged Firebase to ensure the security of the app and to streamline user sign-up experience by **400%**.

AI-Enhanced To Do List | *Python, Flask, SQLAlchemy, OpenAI, HTML, CSS*

- Designed an AI powered To-Do list that automatically generates ordered subtasks for the users tasks.
- Engineered AI prompts to achieve **100%** realistic and step-guided subtasks for the user to complete.
- Implemented a local task database using SQLAlchemy to ensure **persistent storage** and user privacy.

GoTerpret - Bash Shell | *Go*

- Built a Bash shell interpreter from scratch using Go, allowing shell commands, piping, and redirection.
- Implemented built-in commands such as cd, exit, and echo, providing a simplified shell environment for users.
- Integrated error handling to ensure proper execution and improve the stability of the shell interpreter.