

Xiaoxiao Zhao

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Education

University of Toronto

Sep. 2021 - May. 2026

Bachelor of Applied Science in Computer Engineering + PEY (Professional Experience Year) Co-op

- Relevant courses: Software Engineering, Introduction to Machine Learning, App. Fund. of Deep Learning, Algorithms and Data Structures, Operating Systems, Computer Architecture, Software Communication and Design

Work Experience

R&D Intern, Momena, Shanghai, China

Jun. 2024 - Sep. 2025

- Engineered a full-stack solution for the Tele-operation System (TOS), developing a Go-based backend with real-time WebSocket communication to integrate with the work order system, eliminating 15+ daily manual status updates for operations teams.
- Reduced dangerous scenario response time by over 60% (from 5 seconds to 2 seconds) by implementing a front-end "one-click takeover" button and cloud-side steering wheel haptic feedback.
- Improved codebase quality and maintainability by leading the cleanup of over 300 instances of non-standard code, resolving issues like non-validated props and unnecessary rendering.
- Automated code quality checks using ESLint and GitHub Actions in the CI/CD pipeline, reducing front-end build time by 20% and ensuring all new code met strict quality standards.

SDE Intern, Microsoft, Beijing, China

Sep. 2024 - Jun. 2025

- Contributed 50+ ideas with revenue potentials during weekly brainstorming sessions at Bing Monetization team
- Completed 40+ front-end features on Azure DevOps platform using C, JavaScript, and TypeScript within an ASP.NET core (some React projects also included)
- Integrated unit testing into the development and deployment workflow, creating and maintaining multiple tests for each feature to automate quality assurance within the Azure DevOps pipelines.
- Flighted 100+ feature experiments, among which, six features were shipped, contributing 15% of team's FY25 KR's
- Obtained a total diluted revenue gain of around one million dollars in CN market

R&D Intern, Moee Robot, Shanghai, China

May. 2024 - Sep. 2024

- Designed a web-app based on Streamlit and Fastapi to act as a control center and bridge the communication between our simulation platform components (Gazebo and our dispatching system)
- Deployed it via docker on the company server to achieve simulation of Autonomous Mobile Robots (AMRs)
- Designed a web-app based on Vue3 and PCL library to automate rosbag mapping, point cloud registration and stitching
- Deployed it via docker on the company server to fill the gap for an online mapping tool for our field engineers
- Built a Retrieval Augmented Generation (RAG) application based on the company's knowledge base using Ragflow and GLM-4, then deployed it as a web app for employee training and documentation chatbot

Engineering Projects

Co-founder, Skimeter Smart Snow Goggles, University of Toronto Hatchery

May. 2024 - Present

- Conducted 100+ surveys and 10+ interviews on the snow sportswear market and verified the market gap
- Drafted a business plan based on the FEELTM House model and a preliminary cash flow projection to support our pitch
- Performed three mock-up pitches with the advisory board to finalize our business model
- Prototyped a smart snow goggle via Raspberry Pi to validate our design concepts and functionalities

Team Leader, Geographic Information System Project, University of Toronto

Jan. 2023 - Apr. 2023

- Worked in a group of 3 to develop a large geographic information system like Google Maps in C++, utilizing the OSM (OpenStreetMap) database and API to draw geographical locations
- Collaborated using Git, learning effective design & communication skills for large-scale software development projects
- Designed the front-end user interface including rendering of images and interaction of all map features using a GTK overlay, EZGL graphics package and STL C++ library
- Implemented Dijkstra's, A*, and 2-opt Algorithms to help determine the ideal path between multiple locations on the map and created elaborate data structures for easy data retrieval

Technical Skills

Programming Languages: C, C++, C#, Python, JavaScript, TypeScript, CSS, HTML

Tools: Azure, Git, PostMan, Bash, Vim, Vue3, React, SQL, Visual Studio, NetBeans, MATLAB

Operating Systems: Linux, Unix, Windows