

# Karen Guan

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## EDUCATION

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### University of Waterloo

Bachelor of Computer Science

Expected 2029

## TECHNICAL SKILLS

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**Languages:** Java, Python, TypeScript, JavaScript, C++, C#, SQL, Swift

**Frameworks:** React, Angular, React Native, NestJS, Node.js, Flask, SwiftUI, TailwindCSS

**Databases & Cloud:** MySQL, SQLite, Redis, AWS, Amazon S3, Supabase

**Tools:** Git, GitHub, Azure DevOps, CI/CD, Playwright, Jira, Figma, Linux, Claude

## EXPERIENCE

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### OneRetain

May 2026 – Present

Product & Software Engineer

Remote

- Built a **Help Center platform end-to-end**, designing MySQL schemas, REST APIs, and React/TypeScript interfaces for managing guides, documents, and videos with client, plan, role, and audience-specific access
- Leveraged **Claude AI** to accelerate development by **150%** through AI-assisted coding, debugging, and implementation, and helped onboard the development team to adopt Claude in their development workflows
- Designed **S3 database storage workflows** for Help documents and videos and developed custom multi-rater ASA and paralegal evaluation workflows for enterprise clients
- Shipped **30+ full-stack features and fixes** across administration, reporting, evaluation forms, and Help systems, debugging React/TypeScript, backend, and MySQL issues through UAT and pretest

### ComputerTalk Technology

May 2025 – Aug 2025

Software Developer (R&D)

Markham, ON

- Built a reusable **Angular/TypeScript component library**, reducing frontend development time by **30%** across multiple features
- Designed and deployed an **alert tracking system** to monitor administrator activity and improve operational visibility
- Resolved **10+ production issues**, improving system reliability and reducing recurring frontend bugs by **25%**

## PROJECTS

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### Wander | React Native, TypeScript, Expo, Supabase

Aug 2026

- Built a location-based social exploration app during a **24-hour hackathon**, dynamically revealing explored areas on an interactive map and surfacing user-contributed photos
- Implemented **location tracking, geospatial map overlays, and photo uploads** with React Native/Expo and Supabase, synchronizing user-generated content across devices
- Designed data models connecting **users, locations, and photos** to support location-based community content

### Personal Website | Three.js, Vite, GLSL, Supabase, JavaScript

Jul 2026

- Built an interactive **3D portfolio** with Three.js, featuring a 3D rendered floating island, custom GLSL shaders, atmospheric effects, and dynamic camera animations
- Engineered a **real-time shared passport** with Supabase, allowing **500+ visitors** to leave timestamped stamps that persist as a global collection of site visitors

### Skincare Web Scraper and Catalog App | Node.js, React Native, Expo, Cheerio

Apr 2026

- Built a **data pipeline** to scrape, normalize, and structure skincare product data, achieving **93% ingredient match accuracy** across **1,600+ tokens**
- Developed a **React Native mobile catalog** with real-time product filtering and search, reaching **600K+ users** and **16K+ ratings** across iOS and Android

### Flow (UofT Hacks 13) | Rust, Swift, SwiftUI, SQLite, LLM APIs

Jan 2026

- Engineered a low-latency real-time transcription system using **Candle (Rust) and Whisper**, achieving **sub-500ms latency**
- Designed a **context-aware rewriting engine** with contact-specific personalization and improved transcription accuracy by **30%** through confidence-based reprocessing