# Andrew Qiao

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## EDUCATION

**University of Waterloo** — Waterloo, ON
*Bachelor of Computer Science* — *Sept. 2022 – May 2026*
- GPA: 3.9, Dean's List (2022 – Present)
- Courses: Data Structures and Algorithms, Object-Oriented Programming, Linear Algebra, Calculus, Probability

## SKILLS

**Languages**: JavaScript, TypeScript, Python, SQL, C++, C, HTML, CSS
**Libraries/Frameworks**: React.js, Next.js, React Native, Django, Flask, Node.js, LangChain, Tailwind CSS
**Databases/Cloud**: PostgreSQL, SQL Server, MongoDB, Redis, Vercel, Google Cloud, AWS, Firebase, Upstash

## EXPERIENCE

**Snowflake** — Apr. 2024 – Present
*Software Engineer Intern* — *Bellevue, WA*
- Building React.js interfaces for products generating **$60M+ in annual revenue** and used by **15,000+ users**
- Integrating a novel E2E testing framework into Jenkins pipeline using Docker, Groovy, and Bash, saving **200+ hours annually** in manual testing
- Driving adoption of a unified system for creating and maintaining **200+ tests** across **5 teams**

**IBM** — Jan. 2024 – Apr. 2024
*Software Developer Intern* — *Toronto, ON*
- Architected a generative AI application for code explanation and test-case generation on **12M+ lines of code** for **100+ developers** using Amazon Web Services (AWS), React.js, and IBM's WatsonX AI platform
- Increased code explanation accuracy from **30% to 90%** by implementing retrieval-augmented generation (RAG) using LangChain, a FAISS vector database, Python, and the Mixtral 8x7B LLM
- Engineered a rules-based anomaly detection system to verify **$10B+** in insurance claims using Python and SQL

**University Health Network** — Oct. 2023 – Dec. 2023
*Software Developer Intern* — *Toronto, ON*
- Deployed an app integrated with GPT-4V to evaluate AI's effectiveness in diagnosing **100+** medical conditions using Next.js, React.js, and Google Cloud
- Assisted **8 clinicians** at Canada's largest research hospital in assessing AI's applicability for clinical care and education, contributing to published medical research ⧉

**TD Bank** — May 2023 – Aug. 2023
*Software Developer Intern* — *Toronto, ON*
- Saved Portfolio Managers **10+ hours a week** in waiting on synchronous tasks by developing a distributed system to defer lengthy portfolio model recalculations using Celery and Python
- Removed **5+ hours a week** of data entry by automating financial report generation with Django and SQL
- Reduced tool loading speed by **67%**, removing unnecessary API calls and adhering to React.js best practices
- Fixed **20+ bugs** by implementing thorough testing frameworks using the Python unittest library

**University of Toronto** — Oct. 2022 – Apr. 2023
*Research Developer Intern* — *Toronto, ON*
- Contributed to a **university-partnered study with OpenAI** ⧉ on AI alignment in the workplace under the supervision of Dr. M. Andiappan ⧉ and Dr. G. Hadfield ⧉
- Streamlined data collection for the study's **500+ participants** by deploying an AI-powered survey platform

## PROJECTS

**Pethsapp** ⧉ | *React Native, Firebase, Google Cloud, Sanity* — Jun. 2021 – Present
- Led **team of 5** in developing my former high school's mobile app, used by **1200+** students, staff, and parents
- Reached **Top 15 on the Apple App Store Education Chart**