

# Anthony Qin

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US Permanent Resident

## EDUCATION

### Bachelor of Science, Specialist Program in Computer Science Co-op

University of Toronto

Toronto, Canada

2021 - 2026

## EXPERIENCE

### Founding Software Engineer (part-time)

December 2025 - Present

UMA

- Joined as one of the **first engineers** to help establish an **in-house engineering team**, owning development across **mobile**, **backend**, and **cloud** systems.
- Developed and maintained **Android software** running on **internet-connected vending machines**, enabling device communication and core application logic.
- Designed and implemented **backend APIs** to support **device management**, **data ingestion**, and core **business workflows**.
- Provisioned and managed **AWS cloud infrastructure** to support **early production workloads** and deployments.

### Cloud Engineer Co-op

May 2025 - December 2025

HOOPP (Healthcare of Ontario Pension Plan)

- **Developed foundational cloud automation solutions** across **AWS** and **Azure** to streamline infrastructure management, including provisioning, configuration, and large-scale migrations, automating processes for nearly **400 virtual machines**.
- Engineered **monitoring** and **observability** solutions for **100+ cloud applications**, improving error alert accuracy by over 90% through automated health checks and custom monitoring workflows.
- **Developed an Azure DevOps automation pipeline** that detects CMDB changes and updates legacy XML process templates, reducing a **45-minute manual workflow to under 5 minutes** and eliminating **100%** of manual edits across multiple teams.

### Undergraduate Researcher – Procedural Generation Research Project

January 2025 - May 2025

University of Toronto / Diamond Schmitt

- Created a **constraint-based** floor plan generator using the Hierarchical Wave Function Collapse algorithm; presentation to **Diamond Schmitt Architects** received enthusiastic feedback and led to potential collaboration opportunities.

### Software Engineer, HCI & AI Intern

May 2024 - August 2024

Autodesk Research

- Developed **Story Visualizer**, a tool leveraging LLMs to help authors visualize and analyze stories through automated story element extraction, infinite canvas visualizations, and AI-generated images.
- Designed and delivered a fully functional web-based prototype that leveraged AI to realize Research Scientists' vision, enabling storytellers to manage narrative elements and visually preview their work.
- Maintained flexible software architecture that allowed for rapid prototyping and adaptation to evolving project requirements
- **Independently researched, designed, and implemented the end-to-end system** (Next.js, LangChain, React Flow), working with minimal oversight and full ownership of technical decisions.

## PROJECTS

### AI-Powered Game Discovery Engine

2025

Steam Oracle

- Designed and built an **LLM-powered search engine** enabling users to discover games using **natural language queries** rather than traditional filters.
- Implemented a **Python backend** using **FastAPI** and **LangChain** to orchestrate LLM workflows and semantic game retrieval.
- Developed a responsive **Next.js frontend** to support interactive search, result ranking, and iterative query refinement.
- Built as a **client-facing prototype** to validate technical feasibility and product direction for a startup engagement.

### Mirror's Memento - Unity Game

- Collaborated with a 12-person team to develop a Unity-Based 3D puzzle game featuring 15 unique levels.
- Designed and implemented key systems, including dynamic controller support, grid movement, and Ai driven hints
- Assisted with the integration of assets and animations, resolving merge conflicts to maintain continuity.
- Published Open beta on **itch.io**, with ongoing updates based on player feedback.

## TECHNICAL SKILLS

**Programming Languages:** JavaScript, TypeScript, C, C#, Python, PowerShell, Java, Haskell, Racket, GraphQL, Lua, Scala

**Frameworks & Libraries:** Next.js, React.js, React Flow, D3.js, Tailwind CSS, Material UI, NumPy, Pandas, Express.js, Spring API

**Tools & Platforms:** Git, Docker, Linux, Android Studio, MongoDB, Firebase, SQL, PostgreSQL, Jenkins, Unity, Godot

**Software Development:** Azure, SDLC, OOP, Functional Programming, Design Patterns, Agile & Scrum, Unit Testing, Integration Testing, End-to-End Testing, TDD, CI/CD