

QUYNH AN TRAN

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EDUCATION

University of Waterloo

Honours Bachelor of Computer Science, Co-op

Waterloo, ON

Sep 2024 - May 2028

TECHNICAL SKILLS

Languages: Python, JavaScript, Typescript, HTML, CSS, Java, C/C++ , SQL

Libraries/Frameworks: Flask, React, Next.js, Node.js, Tailwind CSS, Framer Motion, NumPy, SciPy, Google Apps Script

Tools/ Platforms: PostgreSQL, NeonDB, MongoDB, Google Cloud, SQLite, Git, Bash, GitHub CI/CD, Linux, Vercel

EXPERIENCE

TEDxUW | React, Next.js, TypeScript, Tailwind CSS, Framer Motion, NeonDB

Mar 2025 - Present

Software Engineer

Waterloo, ON

- Building a scalable event management platform using Next.js and NeonDB (PostgreSQL) to support **600+** attendees with secure OAuth authentication, Stripe-powered ticketing, and seamless QR code access.
- Developed modular, animated React components with Framer Motion, standardizing frontend designs and behaviors; increased team productivity by streamlining deployment with CI/CD pipelines and Git-based peer reviews.

UW Data Science Club | Python, SQL, React, Next.js, Node.js, MongoDB, Supabase

Sep 2024 - Present

Lead Software Developer

Waterloo, ON

- Streamlined mentorship matching for **300+** club members by developing a full-stack AI-powered tool using **OpenAI API** for semantic compatibility and Supabase for backend management.
- Automated survey analysis and 1:1 pairing for **140+** event participants with a Python-based networking engine powered by **Groq LLM**, enhancing real-time participant engagement.
- Built a scalable QR-based check-in system using Node.js and MongoDB, processing **2000+** entries with real-time analytics; eliminated a key process bottleneck and improved attendee throughput by **3x**.
- Designed a 3-tiered SQL challenge set for **170+ participants** at Canada's largest student-run datathon, integrating progressively complex queries and automated grading.

UW Computer Science Club

Sep 2024 - Jan 2025

Technical Organizer

Waterloo, ON

- Created competitive programming challenges on cryptography, dynamic programming, and data structure manipulation for over **40 participants** in termly coding competitions.
- Led end-to-end technical setup and execution of a typing contest for **700 members**, integrating real-time performance tracking and ensuring seamless event flow through automated tools.

Alpha Coding | Java, Python, Pygame, API Integration

Sep 2023 - Jan 2024

Curriculum Developer & Instructor

Toronto, ON

- Adapted Python/Java curriculum for 4+ student skill tiers (beginner to advanced), enhancing clarity and engagement across diverse coding backgrounds.
- Mentored students in debugging, algorithm design, and clean code practices across individual and group sessions, raising student engagement by **22%** based on attendance metrics.

PROJECTS

🔗 **Jane Street Estimathon Portal** | HTML, CSS, JavaScript, Google Apps Script

Mar 2025

- Built a responsive Estimathon game portal with AJAX-driven UI and real-time leaderboard updates, enabling seamless form interactions and live scoring for **400+** users via Google Apps Script backend.

🔗 **UW Love Flow** | Flask, HTML, CSS, JavaScript, PostgreSQL, REST APIs

Feb 2025

- Designed a data-driven matchmaking algorithm utilizing MBTI classifications and the Hungarian method (via NumPy, SciPy) to optimize **100+** dynamic pairings.
- Developed a full-stack matchmaking app using Flask, PostgreSQL, and RESTful APIs; automated deployment via CI/CD pipelines and optimized UI for responsiveness across devices.

🔗 **InSync** | React, Python, Spotify Developer API

Jan 2025

- Developed an interactive music visualization web app using Spotify Developer API, dynamically rendering real-time playback data into animations influenced by the chromesthesia condition with responsive React frontend.