Ethan Zhao

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EDUCATION

Western University   **London, Ontario**
Mechatronics Engineering and Ivey Business HBA Candidate   Sept. 2023 – May 2027
- 3.98/4.0 GPA (96.3%). Recipient of the Western Scholarship of Distinction ($2,500).
- Elected first year engineering representative by 53% majority; Managed $150k+ as VP Finance of Residence Council.
- Co-founder of Western TECH, Project lead at Western Quantum Club, Flutist at Western Chamber Music.

WORK EXPERIENCE

Goodkind (Link)   **Toronto, ON**
Software Engineering Intern   May 2024 – Aug 2024
- Headed and released first major feature after 1.5 months, assisting in the acquisition of 3+ new clients.
- Developed a RAG based chatbot using GPT embeddings and vector stores, taking ownership on 3 major features and handling crisis scenarios related to infrastructure or overloaded services.
- Assisted sales team by preparing projected benefit estimates for clients and fulfilling short-term client requests.

Foursight Screenings (Link)   **Toronto, ON**
Co-founder, Software Engineering Lead   May 2021 – Sept. 2023
- Trained a 95% accurate machine learning model to detect the probability and location of cancer from Micro-RNA sequences, earning $10,000+ in funding and forming a comprehensive network of researchers and investors.
- Engineered the back- and front-end of the AI interface, allowing secure public access to the AI model for widespread impact and recognition, winning the Remarkable Students Yearly Grand Prize Award 2022 ($15,000).

aPrepTutors (Link)   **Toronto, ON**
Co-founder, Lead Software Developer   May 2023 – Sept. 2023
- Personally tutored International Baccalaureate (IB) students through higher level physics, math, and chemistry courses.
- Established a tutoring firm that pairs IB candidates with graduate tutors, growing to host 14 tutors and 8 students.

TECHNICAL EXPERIENCE

Robert's Rules Council Automation (Link)   **Nov. 2023 - Present**
- Created an automated council speaking order and voting app now used by over 50 members every meeting, handling over 200 concurrent users and ensuring eventual consistency, permanently changing UES council procedure.
- Later appointed council IT commissioner to maintain both voting system, public facing website, and file repositories.

Investment Portfolio Optimization w/ Quantum Computing (Link)   **Nov. 2023 - Present**
- Taught and led a team of 6 developers to combine quantum computing and qualitative stock analysis, creating a low-risk portfolio optimization algorithm which yielded 0.5% monthly growth.
- Hosted the first quantum-based hackathon in Canada, teaching quantum algorithms and business strategies to developers.

Automated Cadet Training Management (Link)   **Sept. 2022 – June 2023**
- Integrated a training app into cadet activities to automate assignment of 30 instructors per regulation by the department of defense which saves over 6 hours a week for a training team of 15 people.
- Proposed further implementation into other squadrons, resulting in partial use within neighboring squadrons.

LEADERSHIP

Western Developer Society – VP Development   **Sept. 2023 – Present**
- Managed 8 client teams to develop applications and algorithms for 6 clients, including professors, city councilors, and RBC.
- Managed teams through strict DevOps practices, maintaining code quality and efficiency using CI/CD pipelines.

Western Founders Network – VP Projects   **Sept. 2023 – Present**
- Mentored a team of 4 in growing the largest entrepreneurship club on campus through developing and learning technologies including facial recognition and voice command APIs.

Engineering First Year Representative   **Oct. 2023 – Present**
- Elected first year representative by 53% majority across 16 candidates to communicate student needs to faculty.
- Ran workshops and engineering to prepare students for exams and assist in career development.

SKILLS AND INTERESTS

Languages: Java, C, Python, SQL (Postgres), Javascript + Typescript, HTML/CSS
Frameworks: React, Express, Node.js, Django, Tailwind, Nextjs, Sveltekit
Developer Tools: Git, Docker, AWS, Google Cloud, VS Code, PyCharm, IntelliJ, Eclipse, Web Sockets
Libraries: MongoDB, TensorFlow, pyTorch, Pandas, NumPy, Matplotlib
Interests: Music, Cooking, Tech Research, Ballroom Dancing, Skiing, Entrepreneurship