Victor Zheng

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Education

University of Toronto Toronto, ON

Bachelor of Science in Computer Science *Sep. 2021 – May 2026 (Expected)*

CGPA: 3.71/4.0, AGPA: 3.97/4.0, Dean's List (2021-2025)

Undergraduate Supervisors: Professor Paul Dietz, Professor Mario Badr

Relevant Experience

Data Engineering May 2025 – August 2025

University of Toronto *Toronto, ON*

- Led a team of 5 in digital transformation of a department by architecting a department wide RDBMS system resulting in time-savings of over $250,000 and enabling PowerBI visualizations across all business areas.
- Managed day-to-day engineering challenges and worked with engineers to debug, problem-solve and develop technical solutions while collaborating with data scientists, management, and leadership.

Software Engineering Intern (Infrastructure & DevOps) May 2024 – Dec 2024

Ontario Public Service *Toronto, ON*

- Led development of infrastructure observability and monitoring by building an automated system on Azure resulting in improving system uptime and reducing manual maintenance hours by 10 hrs per release cycle.
- Increased speed of CI/CD deployments from 1.5 hours to 15 minutes by utilizing caches, pre-fetching required files, paralleling builds, automating tests, automating approvals, and implementing monitoring/observability.

Quality Engineering Intern Jan 2024 – April 2024

TD Bank *Toronto, ON*

- Designed a scalable, parallel, data-race-free framework which improved test execution speed by 300%.
- Expanded end-to-end automation from 10% to 80% contributing to a cost avoidance of $2.5M and a team prize.

Quality Engineering Intern May 2023 – Dec. 2023

Ontario Ministry of Education *Toronto, ON*

- Conducted QA testing for functional and non-functional requirements utilizing Selenium, SQL, and scripting tools resulting in eventual promotion to sign-off on 5 major releases within the organization.
- Built an end-to-end testing framework integrated with Azure DevOps utilizing the best automation best-practices resulting in an enterprise adoption of tool and a savings of over 20 hours per release cycle.

Projects

ChessLink: A novel way for chess tracking | *Python, ESP32, C, C++, Arduino* Jan 2025 – April 2025

- Developed a chessboard that can detect piece movements with infrared sensors and display moves on a website
- Used a custom PCB with MCUs to read sensor data and send it to a backend server

Interactive Visualizations for CompArch | *JavaScript, React, D3.js,* May 2025 – August 2025

- Developed interactive visualizations to help students understand computer architecture concepts
- Utilized D3.js to create dynamic, data-driven graphics and React for building user interfaces

ChessTools: Tools for chess enthusiasts | *JavaScript, Docker, Python, MongoDB, FastAPI* May 2021 – Present

- Developed a set of tools for chess organizers, arbiters, and players to manage tournaments and analyze games
- Utilized Docker for containerization and deployment of services

Technical Skills

Languages: Python, C/C++, Java, SQL, JavaScript, HTML/CSS, C#
Frameworks: React, NextJS, .NET, Payload, Microsoft IIS, FastAPI
Developer Tools: Git, Docker, GitHub Actions, Azure, VS Code, Visual Studio
Libraries: NumPy, Selenium, Playwright, D3.js, Redis