Yingxin (Maggie) Yao

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Professional Experience

Intel Corporation **May 2023 – Aug. 2024**
Software Engineering Intern *Toronto, ON, Canada*

- Gained a wide range of experience across three different teams working on Intel's oneAPI FPGA compiler and AI toolkits by partaking in a rotation program including compiler memory, AI acceleration, and testing infrastructure
- Contributed to the Compiler Team by enhancing front-end and back-end reporting capabilities, developing new features to optimize device memory management, and automated key processes to advance major refactoring projects, greatly improving performance and functionality
- Made significant improvements to the FPGA AI tool compiler by updating legacy code to meet modern OpenVINO standards, resolving a long-standing library linking issue, and optimizing intermediate reporting in the compiler flow to enhance data utility
- Developed and maintained automation tools using Perl, Python, and Bash scripting to improve build promotion processes and implemented code coverage workflows
- Demonstrated strong communication and organizational skills while coordinating across multiple teams to work effectively within a large and complex codebase

Enbridge **May 2022 – Sep. 2022**
Training & Sustainability Assistant *North York, ON, Canada*

- Prepared user guides and training material for a new pipeline planning software
- Created Excel and PowerPoint report templates to automatically import training data
- Used Python scripts to analyse and visualize survey data

Education

University of Toronto **Sep. 2020 – Apr. 2025**
B.A.Sc. in Computer Engineering *Toronto, ON, Canada*

- 3.7/4.0 GPA, achieved the Dean's Honour List every semester
- Minor in Artificial Intelligence
- Minor in Business

Projects

Budget and Expense Tracker | *TypeScript, Python, React, Next.js, Django* **Feb. 2024 - Present**

- Developed a web application for budget management with automated receipt processing using OCR
- Utilized modern frontend frameworks to create a responsive interface across mobile and desktop devices
- Integrated an LLM to provide personalized financial advice

Optimal Delivery Route Map | *C++* **Jan. 2022 - Apr. 2022**

- Collaborated on the development of a high-performance map-based application to optimize delivery routes based on pickup and drop off points, achieving 2nd place in a competition with 132 teams
- Implemented Dijkstra's, A*, and multi-objective pathfinding algorithms with performance optimized for the NP-hard salesman problem using 2-opt, 3-opt, and simulated annealing
- Utilized the OpenStreetMap API for geographical data and implemented UI features with GTK and EZGL

Embedded Parking Puzzle | *C* **Mar. 2022 - Apr. 2022**

- Designed and implemented a *"Rush Hour"*-style puzzle game on a DE1-SoC board
- Processed user input through a PS/2 mouse and keyboard interface as well as on-board switches
- Displayed user interface and smooth animations to a connected VGA monitor

Technical Skills

Languages: Python, C/C++, JavaScript, TypeScript, HTML/CSS, Java, SQL, Verilog, Perl, Bash, ARM Assembly
Libraries & Frameworks: React, Next.js, pandas, PyTorch, Django, OpenVINO
Developer Tools: Git, GitHub (including Actions), Jira, Vercel, Linux, LaTeX, Microsoft Office