Yifei Qi

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EDUCATION

University of Waterloo   Sept 2022 - Present
COMPUTATIONAL MATHEMATICS HC   University of Waterloo President's Scholarship of Distinction recipient

Delft University of Technology   Sept 2024 - Jan 2025
EXCHANGE MASTER COMPUTER SCIENCE   President's International Experience Award
Course : Distributed System,Machine Learning,Computer Graphic

SKILLS

Program Language	**C/C++**, **C#**, **Python**, **Scala**, **Java**, **Bash**, R, SQL, Racket
FrameWork	**Apache Spark**, **Flink**, **OpenGL**, **Razor**, Numpy, Scikit-Learn, Node.js, Tailwind CSS
DevOps	MiniConda, Docker, WSL2, MySQL, Git, Jenkins
Languages	Native in Mandrain Chinese and English

EXPERIENCE

Software Verification Engineer   **Wise Device Inc, ON**
                                                                                   April 2024 - Aug 2024

- **Designed and developed** a testing software build using C# and.net framework for laser sensor systems, integrates proprietary algorithms with third-party Motion Control API.

- **Transformed testing workflow** with intorducing for XML scripts input to allow automated testing, Implemented real-time data capture and dynamic visualization using the OxyPlot library, enabling comprehensive analysis of sensor performance under various conditions.

- Progressed development of another testing software with MFC framework , implementing focus algorithms for various surface types to automate sensor focusing and value collection. Enhanced code quality by reducing redundancy and designing a robust OOP structure, improving maintainability and scalability of the software

Junior Technical Support Analyst   **AGF Management Inc, ON**
                                                                                   April. 2023 - Aug. 2023

- Automated IT device management through Microsoft Power Automate and Microsoft SharePoint, enabling the automatic updating of device records for loaning, usage, incident and repair status.

- Use MS Power BI to create data visualization of data records from Service Now to analyze device repair rate, and incident counts per staff member, and identify outstanding incident category from 2022 to 2023.

PERSONAL PROJECT

OpenGL Renderer   Delft, Netherland
DEVELOPER   Oct. 2024
- Developed a real-time graphic renderer using OpenGL and C++20.
- Implemented various features including multiple shading models (Lambert, Blinn-Phong, PBR), HDR environment mapping, deferred rendering, post-processing effects, image-based lighting, and realistic material textures for enhanced realism.

Chat Processing for Moss LLM   Waterloo, ON
DATA CLEANING   July. 2023
- Developed a Python script to process and clean large-scale multilingual chat data, extracting key instructions and outputs, filtering non-English content, and structuring the data for model training.

Sorcery   University of Waterloo, ON
DEVELOPER AND DESIGNER   Nov. 2023
- Designed a Hearthstone-like card game using C++20 that offers two players to play game against each other using card deck built by players through both Text display and GUI display using X11.

- Employing various techniques such as polymorphism, inheritance, and various design patterns such as decorator pattern, observer pattern to ensure a maintainable program following the low coupling, high cohesion principle.