Thomas Liu

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EDUCATION

University of Waterloo — Waterloo, Ontario
Bachelor of Mathematics - Major in Statistics and Computational Mathematics — *Sep. 2022 – Present*

TECHNICAL SKILLS

Languages: Python, C/C++, HTML/CSS, JavaScript: TypeScript, SQL, PowerBI, R, C#, MATLAB, Racket
Frameworks: Node.js, React.js, Bootstrap, JSON, SCSS, React Native, JQuery, ASP.NET, NumPy, Matplotlib
Developer Tools: Visual Studio, Git, Excel, Bash, LaTeX, XCode, Linux, Heroku, Netlify, Postman, Insomia
Database: MongoDB, MySQL

EXPERIENCE

Full Stack Developer — Sep. 2023 - Dec. 2023
SparkLease Inc. — *Toronto, ON*
- Used various tools such as **XML, CSS, JS** within **React Native** to develop **WeChat Mini APP** with engaging layout, robust filter system, and proficient account management functionality
- Utilized **ASP.NET** alongside **CSHTML, CSS, JS** to implement both **PC and Mobile Website** with engaging layout, comprehensive filter system, and efficient account management for the company
- Designed and implemented robust **APIs** using **MVC** architecture to ensure efficient data handling and streamlined user experiences
- Worked closely with database using **SQL** and **Microsoft AZURE** and comimg up with algorithm that provides recommendations to users using **C#**

IBM Enterprise Mentorship Program with a focus on Business Analysis — Jul. 2022 - Aug. 2022
IBM and Asian Business and Management Program — *Toronto, ON*
- Applied **IBM Cognos Analytics** to analyze Toronto hospitals' medical supplies
- Analyzed data and made future projection based on the current supplies
- Provided suggestion about the distribution of medical supplies over the entire Toronto region

Vex Robotics — Jul. 2019 - Aug. 2020
Team 905Y — *Toronto, ON*
- Worked in a team of 4 to compete in **VEX Tower Takeover Challenge**
- Engineered a competitive **robot** with advanced functionalities and precisioin
- Leveraged **C++** to enable robot to perform excellent functionality and automated tasks
- Ranked **13th** among **20,000+** teams internationally for skill related challenge and world finalist

PROJECTS

Snake Game | *Python, Pygame* — Dec. 2022 - Jan. 2023
- Built a **Snake Game** using **Python** built-in functions and **Pygame**
- Improved **UI** and **UX** by customizing pictures and sound effects

Condo Database Management | *C++* — Jan. 2022 - Jun. 2022
- Developed a database that can access and modify all the data that has been stored into the program
- Used self-defined exception class to catch all the error message generated during the program
- Utilized polymorphism and class to increase security to the data stored

Watopoly (Variant of Monopoly) | *C++* — Jan. 2024 - Apr. 2024
- Developed using **C++ OOP** principles: recursion, pointer algorithm, inheritance, exception handling
- Implemented the system logic with the use of STL container and STL algorithms

CERTIFICATE

- CPA: Programming Essentials in C++
- CCNAv7: Switching, Routing, and Wireless Essentials
- CCNAv7: Introduction to Networks
- IBM Enterprise Mentorship Program with a focus on Business Analysis Certificate