# 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, SQL, R, C/C++, HTML/CSS, JavaScript: TypeScript, LaTeX, C#, MATLAB, DAX
**Frameworks**: Node.js, React.js, Numpy, Matplotlib, Pandas, TensorFlow, React Native, JSON, JQuery, ASP.NET
**Developer Tools**: Visual Studio, Git, Power BI, Excel, Bash, Linux, Postman, Heroku, Netlify, Insomia
**Database**: MongoDB, MySQL

## EXPERIENCE

**Data Analyst**                                                                              May. 2024 - Aug. 2024
*Ontario Lottery and Gaming Corporation*                                                             *Toronto, ON*
- Conducted data analysis using **Python** to analyze past promotion trends, leveraging libraries such as **Pandas**, **NumPy**, and **Matplotlib** for data manipulation, statistical analysis, and visualization
- Developed and optimized complex **SQL** queries to retrieve large datasets from the datalake efficiently, ensuring timely availability of data for analysis
- Created detailed reports and dashboards that summarize key metrics and trends using **Power BI** to present findings in an accessible and visually compelling manne
- Worked closely with cross-functional teams including Payment, Sports, and Lottery to ensure alignment and support the implementation of data-driven strategies

**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, robost 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

## PROJECTS

**Stock Forecast** | *Python*                                                                  Apr. 2024 - May. 2024
- Developed a comprehensive stock forecasting model leveraging **Python** and **machine learning** algorithms
- Utilized **Pandas** and **NumPy** for efficient data manipulation and preprocessing
- Applied **LSTM** (Long Short-Term Memory) models to enhance the accuracy of future stock price predictions

**Watopoly (Variant of Monopoly)** | *C++*                                                     Jan. 2024 - Apr. 2024
- Developed a variant of Monopoly game using **C++** and **OOP** principles
- Implemented a robust game engine that supports multiple players, properties, and game rules
- Utilized **polymorphism** and **inheritance** to create a flexible and scalable game structure

## 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