

Thomas Liu

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EDUCATION

University of Waterloo

Bachelor of Mathematics - Major in Statistics and Computational Mathematics

Waterloo, Ontario

Sep. 2022 – Present

TECHNICAL SKILLS

Languages: Python, SQL, R, C/C++, HTML/CSS, JavaScript, LaTeX, C#, MATLAB, DAX

Frameworks: Numpy, Matplotlib, Pandas, TensorFlow, PyTorch, Scikit-learn, Flask, JSON, React.js, ASP.NET

Developer Tools: Visual Studio, Power BI, Cloudera Machine Learning, Git, Excel, Bash

Database: MySQL, Microsoft AZURE, Cloudera Operational Database, Salesforce, MongoDB

EXPERIENCE

Data Analyst

Jan. 2025 - Apr. 2025

Lifestyle Home Products

Toronto, ON

- Built dynamic dashboards by integrating **Salesforce** data with **Google Sheets** and **Looker Studio**, enabling real-time insights that supported data-driven decision-making across business teams
- Established a stable **POST API** connection to securely transmit customer data from **Salesforce** to third-part system Bellastone, ensuring reliable and efficient cross-platform data exchange
- Implemented data validation workflows to ensure data integrity, accuracy, and completeness within **Salesforce**, enhancing reporting reliability, sales forecasting, and business intelligence processes

Data Analyst

May. 2024 - Aug. 2024

Ontario Lottery and Gaming Corporation

Toronto, ON

- Conducted post-campaign analysis using **Python** with **Numpy**, **Pandas**, and **Matplotlib**, identifying key audience segments and optimizing marketing strategies to drive a **20%** increase in ROI
- Constructed **Power BI** dashboards and **SQL** queries to streamline data access for business teams, reducing data request time by up to **90%** and enabling faster, data-driven decision-making
- Collaborated with the Advanced Analytics team to design and implement the **North Star Metric**, enhancing customer accuracy by at least **10%** for promotions and improving overall campaign performance

Full Stack Developer

Sep. 2023 - Dec. 2023

SparkLease Inc.

Toronto, ON

- Designed and developed the user profile feature in WeChat Mini App using **React Native**, **XML**, **CSS**, and **JavaScript**, enabling seamless post management and optimizing process speed by **50%**
- Engineered responsive PC and mobile websites with **ASP.NET**, **CSHTML**, **C#**, and **JavaScript**, enhancing user navigation by **30%** through a dynamic filter system and improved account management
- Created a recommendation algorithm using **C#** and **SQL** on Microsoft Azure, increasing data retrieval speed by **30%** and improving recommendation accuracy by **15%**, leading to higher user satisfaction

PROJECTS

Coffee Saver | *Python, JavaScript*

Jan. 2025 - Feb. 2025

- Developed a full-stack web application using **Flask** and **React.js** to track coffee prices, calculate long-term expense, and integrate real-time interest rates from Bank of Canada API
- Implemented database-driven price tracking using **MySQL**, enabling users to search, store and compare coffee prices while leveraging external APIs (Google Search & financial data) for automated price retrieval

Stock Forecast | *Python*

Apr. 2024 - Mar. 2025

- Developed an **LSTM-based neural network** to predict stock price trend, achieving an accuracy of **83%** and outperforming traditional models by **15%** in overall trend forecasting performance
- Utilized **Numpy**, **Pandas**, and **TensorFlow** to preprocess and analyze historical stock data, identifying key features and trends to enhance model training and prediction reliability

Watopoly (Variant of Monopoly) | *C++*

Jan. 2024 - Apr. 2024

- Implemented a Monopoly variant in **C++** using **Object-Oriented Programming** principles, featuring unique gameplay rules, dynamic player interactions, and an intuitive property management system
- Applied **OOP** to structure core components, including players, properties, and the game board, ensuring modular design, scalability, and maintainability for future feature additions