

Michael Liu

📍 Markham, ON ✉ m529liu@uwaterloo.ca ☎ +1 289-943-5743 in michaelliu 🌐 AgentXCross

Education

University of Waterloo

Sept 2025 - Apr 2030

BMath in Mathematics

- Incoming Student Fall 2025, Class of 2030

Bill Crothers Secondary School

Aug 2021 - Jun 2025

Ontario Secondary School Diploma

- Graduated 2nd in Class of 2025 with 99.167% Top 6 Grade 12 Average
- Awards: Academic Accomplishment Award, Excellence in Mathematics Award, 8x University of Waterloo Mathematics Contest School Champion + Certificate of Distinction, 6 Additional Academic Course Awards
- Activities: Cross-Country Captain, Track, Peer Tutoring, Half-Marathon

Technical Skills

Programming Languages:	Python, SQL
Data/ML Libraries:	Pandas, NumPy, scikit-learn, Matplotlib/Seaborn/Plotly
Visualization:	Excel (PivotTables/Charts, Power Query), Tableau
Databases/Tools:	PostgreSQL, MySQL, SQLite; Git, GitHub; Jupyter Notebook, VS Code

Projects

Classical Machine Learning w/ Python scikit-learn

[github/PythonDS-ML](#) 

- Developed and evaluated machine learning models (regression, decision trees, random forests) to predict outcomes in datasets such as Medical Charges, Apple Stock Direction, Breast Cancer (Malignant Vs Benign), Rossmann Sales, and Titanic Survival.
- Optimized Breast Cancer Model to 97% accuracy and Rossmann Sales Model to 0.129 RMSPE on Testing
- Feature Engineering, Data Cleaning, Exploratory Data Analysis, Data Visualization
- Tools Used: Python, Pandas, scikit-learn, Plotly, Seaborn, Matplotlib, Jupyter Notebook

SQL Data Analytics w/ PostgreSQL and MySQL

[github/SQL](#) 

- Analyzed large datasets (Netflix, Data Job Postings, Pandemic Layoffs) using SQL to find trends
- Developed complex queries using CTEs, subqueries, window functions, joins, grouping, and aggregations
- Tools Used: PostgreSQL/PgAdmin, MySQL Workbench, VSCode

Python Data Analytics w/ Python Pandas

[github/Python DS-ML](#) 

- Analyzed Datasets (NBA Stats, Premier League Stats, Google Play Store) to create visualizations and analyze trends
- Data Cleaning, Data Matching, Merging, Grouping, Joining, Visualization

Experience

Tennis Instructor

Markham/Unionville, ON

Unionville Tennis Club/Premier Racquet Clubs Markham

Apr 2022 - Present

- Over 500+ hours worked across 4 summers in Summer Camps and Private Hitting Lessons at Unionville Tennis Club and 1 winter at Premier Racquet Clubs Markham with children and parents in group lessons
- Worked with children ages 5-15 in group and 1-on-1 lessons. Led group training sessions of up to 10 athletes, adapting instruction to various skill levels

Tennis Racquet Stringer

Markham, ON

Self-Employed

Jan 2021 - Present

- Providing racquet stringing services for local tennis players from my own basement.