Matthew Mo

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Education

University of Waterloo — Waterloo, ON
Bachelor of Mathematics, Data Science (Co-op) — *Sept. 2024 – May 2028*
Cumulative Average: **85%**

Projects

LinkedIt (GeeseHacks - Best Beginner Hack) | *React(JS), Tailwind(CSS), HTML, Python, Selenium*
- Developed a web application that automates LinkedIn job searches using Selenium, extracting profiles based on specified roles and companies.

AgeWell – Alzheimer's Safety & Independence Platform | *React, Express, Python, YOLOv8, MediaPipe, Twilio, MongoDB, Leaflet*
- Built an integrated caregiver–patient web application in a 36-hour hackathon featuring YOLOv8 + MediaPipe fall detection, OCR-based consumption recognition, live location tracking, Twilio emergency alerts, and MongoDB logging.

Stock Dashboard | *Python, Streamlit, Plotly, yfinance, Pandas*
- Built an interactive dashboard to visualize stock prices, moving averages, cumulative returns, drawdowns, and key performance metrics with color-coded daily changes and CSV export.

Customer Churn Prediction | *Python, scikit-learn, pandas, matplotlib*
- Developed a Random Forest classifier to predict customer churn with 78.5% accuracy on 7,000+ telecom customers, applying data preprocessing, one-hot encoding, and feature engineering techniques.
- Identified top 3 churn predictors through feature importance analysis (monthly charges, tenure, contract type), delivering actionable insights for targeted retention strategies.

Sentiment Analysis - Movie Reviews | *Python, scikit-learn, nltk, pandas, numpy, matplotlib*
- Built an NLP sentiment classifier achieving 88.7% accuracy on 50,000 IMDB movie reviews using Logistic Regression, applying text preprocessing, stopword removal, and TF-IDF vectorization with 5,000 features.
- Compared multiple classification algorithms (Logistic Regression vs Naive Bayes), demonstrating balanced performance with 87% recall on negative reviews and 90% recall on positive reviews.

Monte Carlo Stock Simulation | *Excel, VBA*
- Developed an Excel-based simulation program to project probable returns for individual stocks or the entire market, compiling thousands of simulated scenarios into one data model.
- Generated data-driven insights by simulating potential market outcomes over specified time periods, supporting informed investment decision-making and risk analysis.

Skills

Languages: Python, R, Java, Javascript, C, C++, HTML/CSS, SQL, Excel VBA
Libraries and Frameworks: Python: NumPy, YFinance, Pandas, Matplotlib, Flask, Scikit-learn, Scipy, Plotly, Streamlit, nltk
Soft Skills: Teamwork, Organization, Critical thinking, Responsibility, Eager to learn, Quick Learner

Experience

Accounting Associate — May 2025 – Aug 2025
Stratos Solutions Inc. - Collaborating with Anderson Global — *Toronto, ON*
- Worked alongside senior staff on accounting and tax consulting projects, analyzed client accounting data and prepared in-depth tax research reports.
- Conducted tax and invoice overpayment recovery analysis using data-driven models, prepared detailed financial reports and cost analysis for major corporations such as Boeing and PW&C that contributed to recovering over $1M in tax credits while ensuring compliance with contractual requirements.
- Leveraged Microsoft Office Suite, including advanced Excel functions and VBA, to streamline financial analysis and reporting, reducing tasks that typically took 3 hours to just 10 minutes for client deliverables.

Computer Science Tutor — Sept. 2022 – June 2024
Students Supports Students — *Toronto, ON*
- Taught basic and foundational computer science concepts to a class of 8-14 children (ages 10-12) in a weekly session, fostering early tech skills and problem-solving abilities through engaging, age-appropriate activities.