Izan Khan

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Mathematics & Statistics student at McMaster University with hands-on experience in SQL, R, Python, Machine Learning, Tableau, Power BI, and GCP (BigQuery). Skilled at gathering, cleaning, analyzing, and visualizing data to support decisions. Seeking a Data Analyst role to deliver business insights.

EDUCATION

McMaster University — Hamilton, ON

Honours B.Sc. — Mathematics & Statistics (Fourth year), Minor in GIS — *May 2023 – Present*

- Relevant Coursework: Applied Regression Analysis (SAS), Survey Sampling, Probability, Statistical Methods, Data Science I–II, Scientific Computation, Linear Algebra I–II, Calculus I–IV

EXPERIENCE

Analytics Intern — Remote

Tolmar Inc. (Pharmaceutical) — *Sept 2026 – Present*

- Built Tableau dashboards on SQL queries (Azure Synapse) that refresh near-daily with no manual input, eliminating ∼2 hours/week of manual reporting and supporting the team's transition from Power BI to Tableau
- Delivered ad hoc analyses on ∼300K rows of commercial data using SQL and Excel, identifying which sales reps were meeting targets and tracking product revenue across Canadian regions for senior managers
- Built Tableau reports benchmarking key products against competitors across Canada for cross-functional stakeholders
- Created presentations and master templates that translate analytical findings for non-technical business partners

PROJECTS

Multi-Department Revenue Analysis & Dashboard | **SQL, Power BI** — 2026

- Queried and cleaned 6 years of Kaggle department-store revenue data (2017–2022) in SQL, finding a 2018 peak followed by steady year-over-year decline
- Built an interactive Power BI dashboard visualizing department-level revenue trends for cross-unit performance comparison

Ontario Hotel Performance EDA (2020–2023) | **pandas, Matplotlib, Seaborn** — 2026

- Analyzed occupancy, ADR, and RevPAR across 20+ Ontario regions using open data, finding Downtown Toronto had the largest COVID occupancy recovery (48.4 pp) from 2020–2023
- Found a weak positive correlation (0.36) between occupancy and ADR, suggesting pricing and demand are largely independent across regions

Bank of Canada Credit Card Arrears Time-Series Analysis | **Python, Valet API** — 2026

- Pulled Bank of Canada series through the Valet API, resampled them to a common frequency, and merged them into a clean 45-row quarterly dataset (2015–2026)
- Selected variables using lag correlations, tested all series for stationarity with ADF tests, and applied first-order differencing
- Fit an OLS regression on lag-3 differenced data (n = 41) and found no significant link between mortgage rate changes and credit card arrears changes ($p = 0.36$, $R^2 = 0.02$), despite a 0.65 correlation in levels

Credit Card Fraud Detection | **Python: scikit-learn, imbalanced-learn, Seaborn** — 2026

- Built a Random Forest classifier to detect fraudulent transactions across 284,807 records, achieving an AUC-ROC of 0.9731
- Addressed severe class imbalance (0.17% fraud) using SMOTE, improving detection of the minority class
- Evaluated with precision (0.85), recall (0.84), and AUC-ROC, catching 82 of 98 fraud cases in the test set

TECHNICAL SKILLS

Data & Analytics: SQL, Excel, R, SAS, Tableau, Power BI (DAX, Power Query), Azure Synapse Analytics, GCP (BigQuery)
Python & Machine Learning: Pandas, NumPy, scikit-learn, TensorFlow, PyTorch, Matplotlib, Seaborn
Other: Git, JavaScript, HTML/CSS, Microsoft Office

VOLUNTEER EXPERIENCE

Peer Mentor — Hamilton, ON

Math & Stats Society, McMaster University — *Sept 2026 – Present*

- Mentor students on coursework, program and specialization selection, and general guidance navigating university

McMaster Science Student Ambassador — Hamilton, ON

Faculty of Science, McMaster University — *Sept 2026 – Present*

- Represent McMaster and the Faculty of Science to prospective students, helping them assess program and university fit

Youth STEM Volunteer — Hamilton, ON

Mathstronaut's Spark Program — *May 2026 – June 2026*

- Supported instructors delivering numeracy-focused workshops for Grade 3–5 students in partnership with Hamilton Regional Indian Centre, YMCA Beyond the Bell, and Hamilton Public Library