

OM PATEL

🎓 4th Year | ✉ o22patel@uwaterloo.ca | ☎ (647) 231-8391 | 🔗 /omrpatel | 🌐 /ompat5 | 🌐 omrpatel.ca

Programming Languages: Python, SQL, R, C++, C, JavaScript, TypeScript, HTML, CSS

Libraries: Pandas, Numpy, TensorFlow, Scikit-Learn, Matplotlib, OpenCV, Keras

Technologies: Snowflake, Looker, MySQL, Oracle DB, Power BI, Fivetran, Azure ML Studio, Git

EDUCATION

University of Waterloo (*Bachelor of Mathematics, Honours Data Science COOP*)

SEP 2021 - MAY 2026

- **Awards & Academics:** 3.7 GPA, President's Scholarship of Distinction
- **Relevant Coursework:** Machine Learning, Artificial Intelligence, Data Structures and Algorithms, Database Management, Stochastic Processes, Generalized Linear Models, Classification and Regression, Data Analysis

WORK EXPERIENCE

Data Analyst Intern @ Ontario Ministry of Education

SEP 2024 - DEC 2024

- Implemented schema changes on the Ontario Student Information System (**normalized database**) and the Ontario Education Data Warehouse (**denormalized, star schema**) to optimize Ontario's public education policy decision-making.
- Automated data preprocessing for **50,000+ entries** using Python (**Pandas, Numpy, OpenPyXL**) by standardizing formats, identifying missing values, and flagging logical inconsistencies for model training.
- Led discussions with external clients to define preprocessing requirements for urban planning data files from **70+ municipalities**.
- Validated data integrity and accuracy by writing and executing **SQL** testing scripts after ETL processes.

Data Scientist Intern @ Darwin CX

SEP 2023 - APR 2024

- Implemented a **K-Means model** to introduce predictive data clustering and improved forecasting accuracy by **20%** by accounting for seasonal fluctuations in sales data.
- **Eliminated** processing delays in major Looker reports, enabling instantaneous loading by establishing **persistent derived tables**.
- Monitored **DBT Labs** Cloud jobs and builds, conducting ad-hoc analysis to resolve failed tests and ensure data pipeline reliability.
- Decreased **7%** of Analytics Division operations costs by optimizing **Snowflake** compute resources and refactoring SQL queries.

Data Analyst Intern @ Darwin CX

APR 2023 - SEP 2023

- Translated raw data into actionable insights by designing **20+ Looker** reports specific to customer requirements.
- Accelerated audit resolution efficiency by **2x** through developing **SQL** queries to produce data integrity verification reports.
- Conducted ad-hoc analysis to identify and remove anomalies within Looker reports flagged by clients.

Data Manager Intern @ Ontario Ministry of Transportation

SEP 2022 - DEC 2022

- Supported business operation decisions by generating **3 dynamic Power BI** reports on the organization's IT application usage.
- Reduced processing time by **75%** by creating **Python** scripts to automate the reformatting of business documents.

PROJECTS

Pluto: Finance App | SQLite • Machine Learning Integration • TypeScript 🔄

DEC 2024 - PRESENT

- Developing a Finance App to help users track finances and budget effectively, with a feature for user-specific transaction groupings.
- Designing a **transaction classification model** including database design, data preprocessing, model testing for optimal accuracy, and deploying with **FastAPI**.

Minesweeper AI Bot | Artificial Intelligence • Data Visualization 🔄

JUN 2024 - SEP 2024

- Built a Minesweeper AI Bot using **Constraint Satisfaction Problem** modeling, achieving **83%** success through recursive inference.
- Constructed a solver that combines basic deduction, **subset solving**, and probabilistic exploration to maximize success rate.

Sign Language Detector | Deep Learning • Computer Vision 🔄

JUL 2024 - AUG 2024

- Created a computer vision model using **OpenCV** to classify the American Sign Language (ASL) alphabet.
- Collected data, trained, and tested a **Convolutional Neural Network** using **TensorFlow**, resulting in a **77%** detection accuracy.