Joe Youssouf

Windsor, Ontario, Canada

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Technical Skills

Programming Languages: Python, SQL, Go, Bash, HTML/CSS, MATLAB & Simulink
Data Science Frameworks/Packages: Pandas, Scikit-learn, NumPy, Matplotlib, Django/DRF, Flask
Data Engineering/MLOps Tools: Dataflow, PostgreSQL, Dagster, Airflow, dbt, MLFlow, DigitalOcean, Iceberg, Clickhouse, Timescale, LLMs (Anthropic, OpenAI, Google, etc.), Model Context Protocol (MCP)
Dev Environments and Tools: Jupyter (Classic and Lab), VS Code, Google Cloud Services
Other: Tableau, Git, GitHub, MacOS, Linux (Ubuntu, WSL2), Arduino/RPi, uv

Industry Experience

Oden Technologies   **New York, NY**
Data Scientist II   *Oct. 2024 - Present*
Company Objective: Combine years of complex, high-frequency manufacturing time-series data and AI-driven analytics to deliver real-time, human-in-the-loop process recommendations and predictive insights, empowering frontline operators to dramatically reduce variability, boost efficiency, and optimize production in manufacturing facilities worldwide

- ProcessAI: Delivered real-time control system recommendations to operators and process engineers on the factory floor. Maintained customer relationships at a data science services level and expanded modeling logic across many global manufacturing enterprises.
- Predictive Quality: Developed Gradient Boosted Regression and Linear models to predict in-line sensor data and staggered quality tests, enabling real-time optimization feedback surfaced through ProcessAI.
- Oden Copilot: Co-developed Model Context Protocol (MCP) tools for a unified in-house LLM platform that translates natural and domain-specific language into historical and real-time analyses across customers.
- Recognized for raising internal standards in communication, project deliverables, and transparency—positively impacting both technical and cultural outcomes.

Preteckt   **Hamilton, ON**
Data Scientist, Product   *Sept. 2020 - Oct. 2024*

Company Objective: Leverage years of time series vehicle data and machine learning models to deliver *human-in-the-loop* predictive maintenance alerts and repair plans for thousands of heavy-duty vehicles across North America

- Successfully and independently managed external relationships, performing consulting data science advising and analysis for larger partner companies, setting and meeting contracted project milestones along the way
- Independently designed and built multiple data ingest pipelines using Dagster to capture raw daily API data, perform transformations, and load into Apache Iceberg
- Developed a systematic exploratory data analysis (EDA) internal standard report for newer data scientists on our team, and personally performed thorough analyses for many disparate data sources using Pandas and SQL
- Contributed to preprocessing, training and deployment methods for our clustering and signal anomaly detection production models
- Proud to have mentored 3 co-op students and 2 entry-level data analysts and scientists as well as refactoring and maintaining our official data science onboarding and internal tooling repository

Gordie Howe International Bridge Windsor, Ontario   **Windsor, ON**
Data Scientist Intern, Analytics   *Jan. 2020 - Sept. 2020*

- Conducted a study on Population Density and Local Urban Growth, revealing a major bridge design flaw and averting over $200,000 in construction costs
- Designed clear and captivating data visualizations for both internal and external stakeholders

ENWIN Utilities   **Windsor, ON**
Data Scientist Intern, Analytics   *Jan. 2019 - Sep. 2019*

- Designed ARIMA forecasting models for SMART power grid optimization, saving up to 8% of excessive total power waste during off hours
- Developed a monthly power metric dashboard using Grafana, regularly showcased to provincial government and used to make critical business decisions

Education

University of Windsor   **Windsor, ON**
BASc, Honours Electrical and Computer Engineering

- Dean's Honour Roll, Minor in Mathematics and Statistics

Extra-Curricular Experience

WinSAT - Space & Aeronautics Team
University of Windsor

Windsor, ON
Sept 2018 - Feb 2020

- Competed in the Canadian Satellite Design Challenge (CSDC) against 15+ top Canadian university teams to build a 3U Cube Satellite for Low Earth Orbit with the capability of transmitting photos of the Earth for a year-long mission
- Elected as leader for the Electrical Power Systems (EPS) and for the Command & Data Handling subsystem teams as a result of my dedication to the team and strong communication skills
- Led our division to complete a series of solar panel designs, flight simulations, and oscilloscope testing documents with respect to the project Gantt Chart deadlines
- WinSAT achieved 1st place in the CSDC-5 Critical Design Review (CDR)!

University of Windsor's EPICentre Makerspace
University of Windsor

Windsor, ON
Aug 2018 - Mar 2021

- Designed, programmed, and assembled a 3D printed and laser-cut computer numerical control (CNC) machine with a small group of engineering students.
- Wrote an Arduino module and Mach3, a CNC controller software, to control independent x, y, and z motors in order to move a robotic drilling arm to specific locations
- Presented our finished product at the 2019 Windsor-Essex Mini Maker Faire along with over 30 other local entrepreneurs, inventors, and creators

Other Work Experience

Tim Hortons
Assistant Manager

Windsor, ON
Mar 2016 - Aug 2021

- Promoted to a supervisor and assistant manager position within 3 months and 1.5 years respectively as a result of my committed and consistent professional work ethic and initiative
- Managed a diverse team of employees to accomplish top-of-the-line customer service in a fast-paced and challenging environment
- Presented bold and fresh ideas to local franchisees and owners with respect to work-flow management and team member efficiency that resulted in improved productivity and implementation across all local locations
- Organized and led multiple successful community-based fundraising and charity events such as our annual "Riverside Night Run for Mental Health Support" and "Tim Hortons Camp Day"

Awards and Conference Recognition

CUTA Conference Young Leaders Summit   *2023*
Selected as a delegate among hundreds of applicants to represent and pitch Preteckt among new and experienced Transit Leaders across North America

Google Developers Group Young Leader   *2022 - 2024*
Presented yearly to a crowd of 50-100 local developers and students about building a data-driven startup company as well as presenting a demo on taking raw data and transforming it into a clustering model

Professional Engineers of Ontario Foundation for Education Scholarship   *2021*
Awarded to engineering students who have demonstrated an equal combination of high academic achievement and leadership through participation in professional affairs and extra-curricular activities

Windsor-Essex Chapter - Professional Engineers of Ontario Bursary   *2020*
Awarded to engineering students who have demonstrated exceptional academic achievement

Tim Hortons Young Excellence Scholarship   *2017 - 2019*
Awarded to exceptional students across Canada who have exceeded expectations in their academic studies and who have actively contributed to improving their community through Tim Hortons volunteer events

Electrozad Foundation Scholarship   *2018*
Awarded to electrical engineering students in their second year who have achieved a minimum cumulative average grade of 95%

Dean's Renewable Entrance Scholarship   *2017 - 2021*
Awarded and renewed every term to students who maintain a cumulative average of 90% or greater in their coursework. A grade of 75% or lower in any single course would cancel the renewal of this award.

JANLA Scholarship Award   *2017*
Awarded to a graduating student who has achieved a minimum cumulative average grade of 85% and who has demonstrated passion for their chosen post-secondary field of study through extra-curricular activities

Relevant Coursework and Professional Development

Independent Coursework:

- Machine Learning Specialization (Andrew Ng)
- Forecasting Principles and Practice
- Ubuntu CLI
- Django and DRF Tutorial
- StatQuest's Machine Learning Playlist
- Designing Data Intensive Applications
- SQLBolt
- Makefile Tutorial
- Flask Interactive Tutorial
- Hugging Face MCP Course

Personal Conference Attendance:

- MLOps Agents in Production 2025
- Open Data Science Conference 2023
- Emerging Tech in Automation 2022
- GDG Windsor-Essex 2022, 2023, 2024
- KDD 2022
- PyData 2020 and 2021 (Virtually)

University of Windsor:

- [MATH-126] Linear Algebra (96%)
- [MATH-140] Differential Calculus (94%)
- [MATH-141] Integral Calculus (92%)
- [MATH-215] Vector Calculus (92%)
- [MATH-216] Differential Equations (95%)
- [GE-85-225] Statistical Treatment of Experimental Data (92%)
- [STAT-2920] Probability and Statistical Inference (97%)
- [ELEC-2240] Signals and Systems (94%)
- [ELEC-2280] EM Fields - Physics IV (99%)
- [ELEC-2280] EM Waves - Physics V (98%)
- [COMP-2540] Data Structs & Algorithms (98%)
- [GENG-3130] Eng Economics (98%)
- [ELEC-4570] Digital Signal Processing (85%)
- [ELEC-4490] Sensor & Vision Systems (89%)