

Simarpreet Kaur

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EDUCATION

McMaster University

Honours Computer Science (B.A.Sc.)

Expected Graduation: 2026

St Lawrence College

Computer Networking and Technical Support

Sept 2017 – June 2019

TECHNICAL SKILLS

Languages & Tools: Python, SQL, JavaScript, HTML/CSS, Git/GitHub, Jupyter, Tailwind

ML / AI: PyTorch, Sentence-Transformers (SBERT), scikit-learn, XGBoost, NLTK, langdetect; NLP (semantic search, embeddings, tokenization, extractive summarization), Transformers; model serving/inference

Data / Viz: Pandas, NumPy, Matplotlib, Seaborn, Tableau, Power BI, Excel, PowerPoint

Foundations: Data Cleaning, EDA, Linear Algebra, Calculus

PROJECT EXPERIENCE

Multilingual News Explorer (NLP)

Designed a cross-lingual semantic retrieval and summarization app over multi-locale news feeds.

- Built semantic search with multilingual SBERT, enabling retrieval across 8 languages (EN/FR/ES/DE/IT/PT/HI/JA).
- Implemented extractive summarization via SBERT similarity graphs, producing concise multilingual briefs.
- Deployed a Flask-based inference API (PyTorch-backed) with precomputed embeddings, supporting fast (<200ms) query responses.

Waze User Data EDA and Executive Summary

Uncovered key behavior patterns across 20,000+ Waze user sessions.

- Cleaned and analyzed user activity data in Python (Pandas, Seaborn)
- Visualized trends in session length, drive frequency, and location clusters
- Delivered a data-driven executive summary using the PACE strategy for stakeholders

Employee Retention Prediction – Salifort Motors

Predicted employee turnover using ML models to inform HR decisions and reduce costs.

- Achieved 95%+ accuracy with ML models (Logistic Regression, Random Forest, XGBoost) predicting employee turnover
 - Analyzed 15,000+ HR records to uncover attrition drivers like department, workload, and hours
 - Derived insights to support retention strategies and lower recruitment costs
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WORK EXPERIENCE

Customer Service & Leadership Roles

2019 – Present

- 6+ years in leadership and client-facing roles, building strong communication, problem-solving, and teamwork skills.
- Trained, mentored, and supervised junior staff, improving collaboration and operational efficiency.
- Recognized for reliability, adaptability, and the ability to thrive in fast-paced environments.