Jacob Nadal

Vancouver, British Columbia — (647)-631-6208 — jacob24@rogers.com — LinkedIn — GitHub

Summary

An experienced data analyst with a strong foundation in mathematics, engineering, and computational linguistics. Proficient in financial analysis, data visualization, and business intelligence, leveraging Power BI, SQL, and Python to generate actionable insights. Skilled in problem solving, team leadership, and software-driven analytics. Recently completed a Master of Data Science (Computational Linguistics) to deepen expertise in machine learning and natural language processing.

Professional Experience

Government of British Columbia Ministry of Environment, Vancouver, BC *April 2025 - July 2025*
Natural Language Processing Engineer (Internship)

- Designed and deployed a modular NLP pipeline to classify and extract metadata (title, sender, receiver, address, site ID) from 2000+ scanned environmental site remediation PDFs using ML classifiers and quantized LLMs.
- Engineered duplicate detection logic combining ROUGE similarity scoring and page-length heuristics to flag redundant records with high precision.
- Collaborated with stakeholders to align document taxonomy and registry release rules; integrated rule-based and ML-based type classification with fallback logic.

The Byng Group, Toronto, ON *May 2024 – April 2025*
Data Analyst

- Created a Quote Conversion Dashboard in Power BI, analyzing quote-to-job and quote-to-cancellation ratios using SQL to extract and clean data. Delivered real-time insights that improved sales forecasting and operational decisions.
- Designed a Trade Pool Model to optimize resource allocation by measuring pipeline capacity vs realized quotas. Implemented dynamic GAP calculations and prevented double-counting of multi-skilled tradespeople, improving workforce efficiency and resource planning.
- Developed a "Duckie Flow Model" in Power BI to track customer orders, integrating data from multiple sources, and identifying bottlenecks with drill-through reports. Enabled data-driven decisions to reduce delays and prioritize backlog orders.

Queen's University, Kingston, ON *Jan 2022 – Apr 2023*
Teaching Assistant

- Led weekly tutorials for Engineering Calculus and Linear Algebra, supporting over 40 students.
- Assisted faculty in developing course materials and grading assignments.

Peerage Capital, Toronto, ON *Summer 2021*
Data Analyst Intern

- Compiled and analyzed transaction data across partner realty brokerages, creating a portfolio in Excel to visualize performance.
- Conducted extensive self-storage and stairlift market research.

Technical Skills

Programming: Python, SQL, R, C, C++, Java, DAX, MATLAB, LaTeX
Data Engineering: Power BI, Pandas, NumPy, Dask, PySpark, SQL Server, Excel Macros
Machine Learning & NLP: PyTorch, Hugging Face, Transformers, Ollama, langchain Scikit-learn, SpaCy, NLTK
Tools & Platforms: Git, Docker, Linux, Jupyter, VS Code, DaVinci Resolve, Adobe Creative Suite

Education

University of British Columbia, Vancouver, BC *2024 – 2025*
Master of Data Science, Computational Linguistics

- **Projects:** Biomedical Layman Summarizer, Text Detoxification LLM Pipeline, Film Corpus Annotation and Web Deployment.
- **Machine Learning:** Supervised Learning I & II, Unsupervised Learning, Feature and Model Selection
- **Natural Language Processing:** Corpus Linguistics, Parsing for Computational Linguistics, Sentiment Analysis, Machine Translation
- **Databases & Platforms:** SQL-based retrieval, indexing, and distributed processing; containerized workflows

Queen's University, Kingston, ON *2019 – 2023*
Bachelor of Applied Science, Mathematics and Engineering, Minor in Computer Engineering

- **Mandatory 5 Graduate (800) Level Mathematics courses:** Stochastic Processes, Information Theory, Data Compression & Source Coding, Stochastic Calculus for Mathematical Finance, and Control & Optimization of Stochastic Systems