

Education

HONORS BACHELOR OF COMMERCE (OPTION IN BUSINESS TECHNOLOGY MANAGEMENT) WITH MINOR IN COMPUTER SCIENCE – University of Ottawa | Ottawa, CA

Skills

- **Programming Languages:** Python, SQL
- **Database Management Systems (DBMS):** MySQL, IBM Netezza, MongoDB
- **Machine Learning Frameworks:** TensorFlow, PyTorch, Scikit-learn, Keras
- **AI & ML Techniques:** Supervised and Unsupervised Learning, Neural Networks, Deep Learning, Natural Language Processing (NLP), Computer Vision, Reinforcement Learning
- **Cloud Platforms:** AWS, Azure
- **Data Engineering Tools:** Informatica, Databricks
- **Version Control:** Git, GitHub
- **Data Analysis and Visualization:** Power BI, Tableau
- **Microsoft Suite:** Excel, Word, PowerPoint, SharePoint
- **Languages:** English, French, Arabic

Work Experience

DATA ANALYST – Immigration Refugees and Citizenship Canada (IRCC), Government of Canada | Ottawa, ON
May 2024 – Present

- Extract, manipulate, and analyze data using SQL queries in Data Aqua Studio.
- Leverage GCMS (Global Case Management System) for data retrieval and reporting.
- Design and develop interactive dashboards in Power BI to provide data visualization and support business decision-making.
- Employ Cognos for advanced reporting and analytics.

JUNIOR PROGRAMMER – Immigration Refugees and Citizenship Canada (IRCC), Government of Canada | Ottawa, ON
May 2023 – August 2023

- Developed and designed a SharePoint website for team collaboration and communication.
- Assisted in creating work tickets and assigning requests received through the group's general mailbox.
- Designed diagrams and visuals to facilitate effective tracking and management of tickets.
- Maintained and updated documentation.

TREASURY - STUDENT – Brookfield Renewable | Gatineau, QC*September 2022 – December 2022*

- Analyzed daily liquidity position and performed financial transactions.
- Contributed to the enhancement of Treasury Management System (TMS) for increased efficiency.
- Prepared and presented financial reports for compliance and auditing purposes.

JUNIOR FINANCIAL ANALYST – Global Affairs Canada (GAC), Government of Canada | Gatineau, QC*January 2022 – August 2022*

- Conducted data analysis using Blue Prism to monitor and troubleshoot automated business processes.
- Assisted in testing and quality assurance of automated processes.
- Developed and presented dashboards using Power BI to showcase benefits generated.
- Leveraged HTML to modify websites for improved user experience.

ICMS ANALYST – Indigenous Services Canada (ISC), Government of Canada | Gatineau, QC*May 2021 - December 2021*

- Worked with Integrated Capital Management System (ICMS) and performed data extraction for reporting.
- Created release notes and online help text in French using Robohelp 2020 for system updates.
- Updated ICMS training and user manuals in French to enhance user understanding.
- Utilized GCDocs for document management and version control.
- Generated insightful reports from ICMS data using Excel functionality.

Projects

DATA CENTER OPTIMIZATION USING REINFORCEMENT LEARNING – Personal Project

- Built DQN model to optimize cooling and reduce data center energy/water use.
- Simulated air, liquid, and immersion cooling for GPU clusters.
- Deployed interactive Flask dashboard.

RAG (RETRIEVAL-AUGMENTED GENERATION) – Personal Project

- Created AWS Bedrock + LangChain app for PDF-based Q&A.
- Used FAISS for vector retrieval and Streamlit for user interface.

AZURE END-TO-END DATA ENGINEERING PROJECT – Personal Project

- Built Azure pipeline using Data Factory, Data Lake, and Databricks (Bronze–Silver–Gold).
- Delivered insights through Synapse Analytics and Power BI dashboards.

STUDENT PERFORMANCE PREDICTION – Personal Project

- Built and trained multiple regression models (Linear, Lasso, Ridge, Random Forest, XGBoost, CatBoost) to predict student exam scores.
- Evaluated models using RMSE, MAE, and R² score to select the best-performing model.
- Deployed the trained model and preprocessing pipeline through a Flask web application for real-time predictions.

For more details and additional projects, visit my GitHub.