

Catherine Ding

Toronto, ON | 437-988-6023 | dingyw.catherine@gmail.com

SKILLS

Programming: Python (Pandas, NumPy, Scikit-learn, PyTorch), SQL, SAS

Analytics & ML: Statistical modelling, predictive modelling, classification, regression, clustering, ensemble methods

Visualization & Reporting: Power BI, Tableau, Matplotlib, Plotly, Excel

Cloud & Tools: Azure, Databricks, Git/GitHub, Jupyter, Microsoft Office Suite

WORK EXPERIENCE

Commercial Performance Analyst | Glogou Inc. | Remote, Santa Clara, United States

January 2026 – present

- Developed an interactive **Power BI Dashboard** for Post-campaign Performance analysis integrating Google Ads, Google Analytics, and sales data to monitor spend, ROI, ROAS, and customer acquisition KPIs, identifying insights for future improvements
- Optimized SQL queries** and data transformation processes in python to **improve dashboard refresh performance** and reporting efficiency while maintaining data accuracy and consistency
- Worked with business stakeholders to clarify reporting requirements for ad-hoc data requests, ensuring accurate and timely deliverables

Research Assistant – Data Scientist | Hydro One | Toronto, Canada

January 2025 - April 2025

- Built **automated Python workflows** using **Azure ML** to ingest large-scale geospatial and street view image data via Google Maps API and store in **Azure Blob Storage**, reducing data collection time by 80% and enabling faster model experimentation
- Trained and evaluated a YOLOv5-based **object detection model** to identify sleeves on power lines, applying **data augmentation**, anchor box tuning, and a two-stage detection strategy to improve small object detection performance under complex environmental conditions

Data Scientist | Nestlé | North York, Canada

September 2023 - August 2024

- Developed a **linear programming optimization model (PuLP) in Python** to automate daily ice cream deployment across five distribution centers, increasing truck utilization by 19%, and reducing manual planning by 20+ hours per week
- Designed and implemented **SQL-based ETL workflows** to extract and transform **50k+ daily** production, inventory, and demand records, deployed **automated daily execution via scheduled Databricks jobs**

Data Analyst | Industrial Bank | Nanjing, China

May 2023 - August 2023

- Analyzed retail banking performance** data and **built Power BI dashboards** to monitor assets, deposits, loans, and net operating income, improving visibility into branch- and product-level trends for business decision-making
- Created tailored views for different stakeholders from branch to manager level, enabling **dynamic time-based performance analysis**

Data Analyst | HP Tech Ventures | Remote, Palo Alto, United States

August 2022 - October 2022

- Conducted data-driven startup investment analysis**, assessing product differentiation, competitive positioning, and industry trends to support due diligence decisions. **Built analytics workflows** using **Python** and **Excel**, consolidating multi-source data, improving data quality, and visualizing key findings in executive-ready dashboards for senior stakeholders

INDUSTRY PROJECTS

AML Model Development | Scotiabank Case Competition (Toronto, Canada)

December 2023 - January 2024

- Designed an **end-to-end AML detection pipeline** on transaction-level data using **Logistic Regression** and **XGBoost**, achieving a **25% increase** in suspicious activity capture rate compared to baseline model while balancing detection sensitivity and false positive alerts
- Conducted **exploratory analysis** to assess data quality, transaction patterns, and high-risk behavior, informing feature engineering and model selection under severe class imbalance
- Applied **model interpretability** techniques (**SHAP**) to explain model decisions, support regulatory compliance, and enhance model transparency

Analyst | Deloitte (University of Toronto Industry Project, Toronto, Canada)

September 2024 - January 2025

- Developed a benchmarking framework for Deloitte's Canadian Supply Chain Performance initiative, helping structure KPI comparisons and performance evaluation across Canadian supply chains
- Collaborated directly with Deloitte's Supply Chain & Network Operations team to align analytical objectives with client needs, leveraging **PCA** for dimensionality reduction and **K-means clustering** to generate actionable performance insights and recommendations

EDUCATION

University of Toronto

Master of Engineering | Data Analytics & Machine Learning

McMaster University

Honours Bachelor of Science | Mathematics & Statistics