Justin Dhillon

jdhill94@uwo.ca | 416-797-6661 | linkedin.com/in/justinsinghdhillon | justindhillon.me

Education

Western University — London, ON
Honors Computer Science, Minor in Software Engineering — *April 2027*

Experience

Mainframe Developer Intern — May 2025 – August 2025
Sun Life Financial — *Toronto, ON*

- Developed Python automation scripts for **SQL ERROR -905** handling—on timeouts, automatically captured the failed SQL statement and notified the submitting user via automated email alerts.
- Implemented post-update validation scripts in Python to run key regression checks after mainframe maintenance, preventing critical post-deployment issues.
- Participated in IBM-led Watsonx for Z integration sessions, observing deployment planning and capturing configuration insights to support Gen AI rollout.
- Completed comprehensive hands-on training in IMS, JCL, REXX, COBOL, SQL, and DB2—mastering batch processing, complex query writing, and performance tuning

President & IBM Z Student Ambassador — April 2024 - Present
Western Cyber Society — *London, ON*

- Developed **RiskGuard**, an AI-powered fraud detection system, achieving **97%** accuracy and **30%** speed improvement.
- Led **2** large-scale projects, managing **10** developers to build API integrations with Docker, DB2, and LinuxONE.
- Developed Python-based automation scripts for high-speed data processing, reducing data latency by **20%**.
- Organized IBM Z workshops, introducing **50+** students to enterprise computing and APIs.
- Presented club initiatives and member projects to IBM leadership and major Canadian banks—helping secure internships for members; invited to IBM's Toronto office and showcased projects at the Toronto Tech Expo.

Projects

Risk Guard | *Java, Python, COBOL, JCL, PyTorch, ONNX, Linux ONE* — Sept 2024 - April 2025

- Developed a real-time fraud detection system analyzing over **10,000** transactions per second on IBM Z mainframe, achieving a fraud detection accuracy of **97%**.
- Engineered and processed **590,540** transaction records with **431** feature variables, improving fraud classification through advanced AI-driven feature extraction.
- Designed an ONNX-powered LightGBM model, leveraging gradient-boosted decision trees with **31** leaves and a **5000** round stopping criteria, boosting processing speed by **30%**.
- Optimized AI inferencing using Nvidia Triton and IBM LinuxONE, reducing fraud detection latency to under **50** milliseconds per transaction.
- Implemented automated preprocessing techniques (imputation, scaling, encoding) to clean training data, increasing fraud classification efficiency by **20%**.
- Integrated Python-based automation scripts to streamline AI model deployment, reducing system overhead and enabling real-time fraud detection at enterprise scale.

DataQuest | *Python, NumPy, Pandas, TensorFlow* — March 2024

- Enhanced and optimized ML models using Pandas, Scikit-learn, and TensorFlow, enhancing accuracy by **15%** on a financial transaction dataset with **100,000+** records.
- Performed comprehensive data preprocessing (outlier removal, normalization, feature engineering), reducing model training time by **30%** and boosting prediction reliability.
- Analyzed **500,000+** data points using advanced statistical methods (e.g., PCA, outlier detection), reducing noise and improving model performance by **20%.**

Technical Skills

Languages: Python, Java, C++, SQL, COBOL
Tools & Technologies: Docker, Git, Linux, AWS, Mainframe, DB2, IMS
Frameworks & Libraries: Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, IBM Z Xplore Advanced Badge