

Daniel Okonma

Data Scientist & AI Engineer

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📄 SUMMARY

Data Scientist and **M.S. Candidate** (expected Spring 2028) with **3+ years** shipping **production ML systems**. Delivered **\$4.5M** in validated business impact and a **72%** efficiency gain through **AI-driven automation**. Pairs applied engineering experience with graduate-level academic rigor.

🎓 EDUCATION

M.S. Data Science, *CUNY Graduate Center*

Aug 2026 – Present | New York, NY

Relevant Coursework: Data Mining, Machine Learning, Reinforcement Learning

B.S. Computer Science, *York University*

Sep 2018 – Sep 2022 | Toronto, Canada

First Class Honours

💼 WORK EXPERIENCE

Fraud Analytics Data Specialist, *Definity Insurance Company*

Nov 2023 – Jul 2026 | Toronto, Canada

- **Generative AI & XAI**: Leveraged **Gemini LLM** for automated information extraction, improving pipeline efficiency by **72%**. Implemented an **Explainable AI (XAI)** layer onto a document-tampering classifier that translates SHAP values into natural language summaries for non-technical stakeholders.
- **Computer Vision**: Adapted a **Swin Transformer-based** Document Tampering Detector model using **PyTorch** for insurance-specific fraud detection. Optimized Precision/Recall balance using threshold-adjusted tampering mask.
- **Data Engineering**: Leveraged **Vertex AI** and **BigQuery** to architect and deploy fraud intelligence **ETL pipelines** on GCP. This system automates the identification and deflection of high-risk entities, handling 100% of pre-bind quote verification for the Sonnet (Digital) line.
- **Technical Product Ownership**: Authored the Business Requirements Document for a **Centralized Fraud Intelligence Platform** (CFIP), defining the data schema for OSINT, investigation artifacts, and **behavioural analytics** for a multi-year cloud migration.

Member of GenAI Community of Practice, *Definity Insurance Company*

Nov 2023 – Jul 2026 | Toronto, Canada

- **Generative AI Technical Consultant**: Provided expert **technical consultation** on Generative AI and Large Language Models to teams in Legal, Risk, and Corporate Communications to promote and evaluate **safe enterprise GenAI usage**.
- **LLM Advocacy**: Presented a Gemini-based document extraction Proof of Concept (POC) demonstrating **Large Language Model** (LLM) capabilities for automated document processing and **reducing hallucinations**.
- **Knowledge Leadership**: Led workshops on **Google Gemini Enterprise** and **Microsoft Copilot**, increasing team proficiency in GenAI by **26%** and demonstrating practical applications of these technologies.

🧠 SKILLS

Machine Learning & Deep Learning: PyTorch, Transformers, CNNs, RNNs, scikit-learn, Model Evaluation, Hyperparameter Optimization, SHAP, Explainable AI

Cloud & Infrastructure (GCP): Vertex AI, BigQuery, Cloud Storage, Cloud Functions, ETL Pipeline Architecture

Programming & Data: Python, Pandas, NumPy, SQL, Java, C

Tools: Git, Docker, Podman

📁 PROJECTS

Tableau Network Graph 🔗

Apr 2025 – Jul 2025

Developed a tool for visualizing and analyzing e-transfer transaction networks for fraud detection

- Uses realistic bank e-transfer data and transformed it for Tableau analysis
- Implemented fraud flagging capabilities to enhance detection

NBA PCA Analysis 🔗

Jun 2023 – Oct 2023

Analyzed NBA player shooting tendencies using PCA and clustering techniques

- Aggregated player stats for volume analysis
- Reduced high-dimensional data to reveal player archetypes