ENOCH IBITOGBE

Hamilton, ON
Email — +1 (289) 941-4802 — LinkedIn — GitHub

Data Scientist

Emerging Data Scientist with a strong foundation in **AI, machine learning, and data engineering**. Skilled in developing **predictive and generative models**, building robust ML pipelines, and translating advanced analytics into actionable insights. Experienced in research environments leveraging **Python, TensorFlow, PyTorch, and cloud-based tools** to solve complex problems in scientific and enterprise contexts.

Technical Skills

Programming & Tools: Python (Pandas, NumPy, TensorFlow, PyTorch, scikit-learn), SQL, Power BI, DAX, Git, Excel (VBA)
ML & AI Techniques: Deep Learning, LLMs, Transfer Learning, Supervised & Unsupervised Learning, Time-Series Forecasting, PCA, Regression, Monte Carlo Simulation
Cloud & MLOps: Azure ML, Docker, Model Evaluation & Deployment Pipelines
Visualization: Matplotlib, Seaborn, Power BI, Tableau
Other Skills: Data Wrangling, Feature Engineering, A/B Testing, KPI Design, Responsible AI Principles

Professional Experience

McMaster University — Hamilton, ON
Graduate Researcher — *May 2023 – Present*

- Designed and implemented **machine learning workflows** for scientific modeling of hydrogen–brine multiphase flow, integrating simulation outputs with regression and neural network models.
- Utilized **Python, TensorFlow, and scikit-learn** to develop data-driven models that improved prediction accuracy of fluid behavior across thousands of experimental data points.
- Automated preprocessing and visualization pipelines using Pandas, NumPy, and Matplotlib, increasing research throughput by **50%**.
- Documented technical methodologies and collaborated with multidisciplinary teams to translate ML findings into engineering insights for publication.

Landmark University — Omu-Aran, Nigeria
Assistant Lecturer / Data Scientist — *Mar 2021 – Jan 2023*

- **Developed statistical and AI-based models** to analyze environmental datasets; applied PCA and clustering to uncover drivers of water-quality variation.
- Built **automated ML pipelines** (Python/SQL/Excel) to handle 10k+ records—reducing data cleaning time by **40%**.
- Conducted Monte Carlo simulations and regression analyses to evaluate health-risk uncertainty; communicated findings to non-technical stakeholders.

Selected Projects

Telemetry Anomaly Detection (LSTM Autoencoder) — Hamilton, ON
Python / TensorFlow / Matplotlib — 2025

- Built a sequence-to-sequence **LSTM autoencoder** for detecting anomalies in NASA SMAP and MSL telemetry data.
- Developed preprocessing pipeline (resampling, normalization, sliding windows) and computed reconstruction error thresholds for anomaly scoring.

Predictive Modeling and Data Visualization — Hamilton, ON
Python / scikit-learn / Power BI — 2024

- Created regression and tree-based models for forecasting key metrics and visualized results in Power BI dashboards.
- Designed KPI dashboards for data-driven decision-making, reducing manual reporting efforts by **60%**.

Education

McMaster University — Hamilton, ON
Master of Applied Science — Civil Engineering — *Expected Oct 2025*

- Relevant Coursework: Artificial Intelligence & Machine Learning, Deep Learning, Machine Learning Classification Models.
- Thesis: *Pore-scale Modeling and Predictive Simulation using Machine Learning Frameworks.*

Landmark University Kwara, Nigeria
Master of Engineering — Civil Engineering (Distinction) *2018 – 2020*

Additional Information

Awards: Graduate Research Scholarship — McMaster University
Languages: English (fluent)