

Sophia Ize-Iyamu

Data Scientist | Statistics, Machine Learning & Quantitative Finance | Python, SQL | Engineer & CFA Level I Candidate

Houston, TX, U.S.A. | Open to remote

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SUMMARY

Engineer and data scientist who turns complex, messy data into decisions, with a finance lens. At the Ted Rogers Centre for Heart Research I built and validated predictive models across multiple datasets, owning the work from data curation through validation in Python with rigorous hypothesis testing. At Imperial Oil I turned raw production data from a 200,000 barrel-per-day asset into a \$60.6M margin opportunity and communicated the recommendation to leadership. I work in Python and SQL and frame questions mathematically, with expected-value and risk reasoning from CFA Level I study. Drawn to applying statistics and machine learning to markets and investment data.

SKILLS

- **Data Science & Statistics:** Statistics and hypothesis testing, Experimental design, Predictive and machine-learning modeling, Exploratory data analysis, Root-cause analysis, Data visualization
- **Tools:** Python (Pandas, NumPy), SQL, Git, Bash / Linux, Jupyter notebooks, Tableau
- **Finance & Markets:** Financial modeling and valuation, Commodity and markets analysis, Expected value and risk, CFA Level I candidate

PROFESSIONAL EXPERIENCE

University of Toronto, Ted Rogers Centre for Heart Research

May 2021 - Apr 2025

Research Assistant (Data Science)

- Built and validated 6 predictive (machine-learning) models across 4 datasets, improving accuracy 10% over baseline through rigorous hypothesis testing.
- Owned the pipeline end to end in Python, from data curation and querying through exploratory analysis, modeling, and validation, cutting experiment turnaround 30%.
- Translated technical findings into clear, decision-ready insights for cross-functional research stakeholders.

Imperial Oil

May 2023 - Aug 2024

Engineering Co-op / PEY (Data & Analytics)

- Turned raw operating data from a 200,000 barrel-per-day asset into a \$60.6M margin-improvement opportunity, framing the question from ambiguous data with no standard playbook.
- Built scenario and sensitivity models that informed over \$10M in capital allocation, quantifying expected value and downside for each option.
- Ran extemporaneous analyses on production systems and communicated findings and recommendations to operations and trading leadership.

Black Founders Network

May 2025 - Aug 2025

Product & Strategy Associate

- Queried and analyzed product engagement data in Python and SQL, running exploratory analysis and hypothesis tests to surface the levers that moved conversion.
- Built AI-enabled analytics workflows that cut model-iteration time 60%, speeding data-driven decisions for founders.

SELECTED ANALYTICS & FINANCE PROJECTS

[View the 3-project portfolio \(PDF\)](#)

Market Data Health Monitor

- Python tool that ingests a markets feed, runs data-correctness checks and rolling z-score anomaly detection on returns and volume, and reports which feeds a researcher should review before they reach a model.

Cadence

- Local-first AI tool that turns unstructured financial text into a structured, queryable dashboard in about 60 seconds, built in Python with a local LLM.

Keystone

- Private-equity fund diligence with PME benchmarking and quartile analysis, decomposing track records into a commit-or-pass recommendation.

EDUCATION

University of Toronto, Rotman School of Management - MBA

Expected Apr 2027

GPA 3.72/4.00 · CFA Program Candidate (Level I)

University of Toronto - BAsC, Mechanical Engineering

2020 - 2025

GPA 3.81/4.00 · Minors: Engineering Business, Mechatronics/Robotics, Bioengineering

CASE COMPETITIONS & AWARDS

- **Competitions:** WIL x Honda 'Powering Through Noise' (top 5) · RBC Capital Markets Case (top 10) · TD M&A Case (top 10) · CIBC Product Growth Strategy (top 10) · Kearney Rotman Prize (top 8) · QuantChallenge (top 15)
- **Awards:** Skoll BAsC-MBA Scholar · FinHub Fellow · Dean's List · Engineering Scholarship for Women

LEADERSHIP

- Authored three independent equity-research initiation reports applying DCF, comparables, and reserve-based NAV valuation, deepening markets and financial-statement fluency.
- Vice President (Clubs), Rotman Graduate Business Council; member, Rotman Finance Association.