

DAMILARE OMOLE

Data Scientist

oluwadamilare.omole@gmail.com

573-202-1830

[LinkedIn](#)

[Portfolio](#)

EDUCATION

Ph.D. in Systems Engineering

August 2019 – December 2024

Missouri University of Science and Technology

TECHNICAL SKILLS

Languages: Python, SQL

Tech Stack: Git, Docker, Flask, Power BI, Spark, MySQL, Databricks, VS Code, Jupyter Notebook

GenAI: Hugging Face, Ollama, LangChain, Streamlit

Libraries & ML: Pandas, NumPy, Scikit-learn, TensorFlow, OpenCV, SciPy, NLTK, Feature Engineering, Time Series Forecasting, NLP, Computer Vision

WORK EXPERIENCE

Data Science Specialist

August 2021 – December 2024

Missouri University of Science and Technology

- Built an AI agent leveraging LangChain and llama3 to enable natural language querying of MySQL databases, improving data retrieval efficiency by 60%.
- Designed feature selection pipelines using Boruta and a Genetic Algorithm, which led to a 44% improvement in model accuracy and interpretability.
- Created deep learning models with TensorFlow for financial market forecasting, achieving a 65% improvement in accuracy over baseline models.
- Employed Docker to ensure efficient deployment and implemented version control using Git, resulting in 35% reduction in code conflicts.
- Created interactive dashboards using Matplotlib and Seaborn to communicate insights effectively.

PROJECTS

Agentic MySQL RAG – [GitHub](#)

Missouri University of Science and Technology

- Developed an AI agent that combines MySQL database interactions with retrieval-augmented generation for enhanced data querying.
- Utilized Python, LangChain, Ollama, Llama3, Streamlit and Git.

Algorithmic Trading Decision Support System – [GitHub](#)

Missouri University of Science and Technology

- Designed a deep learning-based system that identified actionable trade signals, delivering back-tested annual returns of over 6,000%.
- Utilized Python, Git, Docker, and CNN & LSTM hybrid architectures for prediction.

Yelp Data Analysis

Coursera

- Analyzed Yelp's publicly available dataset using SQL to identify key indicators predictive of businesses' operational status.

CERTIFICATIONS

- Distributed Computing with Spark SQL – University of California, Davis
- SQL for Data Science – University of California, Davis

PUBLICATION

- **Omole & Enke (2024).** "Deep Learning for Financial Price Direction Prediction: Models and Trading Strategies Empirically Compared." *Financial Innovation*, 10(1), 117.

ACHIEVEMENTS

- My research was featured in a press release distributed via [The Associated Press](#) (January 9, 2025)