U. Jacqueline Okechukwu, M. Eng.

Machine Learning Engineer & Data Scientist

✉ uche.okechukwu@gmail.com

📞 +1 825 365 4543

📍 Calgary, Canada

in https://www.linkedin.com/in/uche-okechukwu

○ https://github.com/ucheokechukwu/

◗◖ https://medium.com/@uche.okechukwu

Profile

A Machine Learning Engineer and Data Scientist with a knack for delivering solutions on a wide variety of DS/ML problems. From developing an SQL Chatbot to query an AWS-hosted database, to delivering rigorous Data Research Studies for Performance and Marketing, my skills are as versatile as my enthusiasm for tackling new challenges. As a former Senior Instrumentation and Project Engineer in an international energy company, my comfort zone is working in diverse and cross-functional teams. Eager to bring my knowledge, experience and enthusiasm to your company to solve problems and generate value for clients.

Skills

Programming
Python | SQL | R | Matlab

Machine Learning Libraries
Tensorflow Keras | PyTorch | Pandas | Numpy | SciKit Learn | Jupyter

Natural Language Processing & Large Language Models
Hugging Face Transformers | LangChain | Llama | | OpenAI | Streamlit | Chainlit

Deployment & Cloud Computing
Snowflake | Docker | AWS | PySpark | MungoDB | Google Cloud

Data Visualization
Tableau | Matplotlib | Seaborn | Plotly

Data Collection and Wrangling
Requests | Selenium | Beautiful Soup

Recent Projects

03/2024	**Yelp Chatbot on Streamlit: LLM RAG chatbot that queries structured & unstructured data on Yelp open datasets. Data hosted by Neo4js Graph DMS. Also integrates routing API.** ⎘
11/2023	**Ted Talk Recommender Engine using FAISS Semantic Search and T5 (Pytorch & HuggingFace)** ⎘
11/2023	**Yelp Review Study: Data collection, experimenting and analysis for Originality.ai AI Detector** ⎘
10/2023	**Fact Checker Study: Building 5 LLM-claims datasets to assess the performance of an NLP-based fact-checker tool for Originality.ai** ⎘
10/2023	**Detecting Duplicate Quora Questions Tensorflow using LSTM and Semantic Search (Tensorflow)** ⎘
09/2023	**SQL Chatbot: Using LangChain and OpenAI to query AWS-hosted SQL server** ⎘
06/2023	**Automated Bank Loan Decision-Making Machine Learning with AWS Cloud Deployment** ⎘

| 06/2023 | **Deep Learning & Reinforcement Learning Stock Predictor Trader Bot** ⍈ |
| 04/2023 | **USA Wildlife Air-Strikes – Data Visualizations and Dashboards with Tableau** ⍈ |

Publications

| 2019 | **A Less Convoluted Approach to 3D Pose Estimation** ⍈ |
| | *IEEE International Conference on Healthcare Informatics* |

Education

2023 – 2023	**Diploma in Data Science**
	Lighthouse Labs
2017 – 2021 Lowell, United States	**Electrical Engineering, Ph.D** *University of Massachusetts*
2015 – 2017 Lowell, United States	**Electrical Engineering, M.Eng.** *University of Massachusetts*
2013 – 2014 Curtin, Australia	**Petroleum Technology, M. Tech.** *Curtin University, Perth*

Professional Experience

01/2024 – present
Canada

AI Engineer & Model Trainer
Freelance for Remoteworks & DataAnnotation

- Evaluating responses generated by LLM models across the general software developer domain.
- Monitoring and documenting performance metrics: accuracy, coherence, relevance, user-friendliness.
- Ensuring the model responses adhere to ethical and legal guidelines: avoiding biased misinformation or providing information that can be used illegally.
- Collaborating with developers for LLM fine-tuning and enhancement.

2023 – 2023
Canada

Data Scientist
Originality.ai ⍈

- Planned and delivered research studies: from data collection, wrangling and analysis to report writing and presentation.
- Developed datasets via web scraping with Requests and Selenium, LLM prompting and SQL querying.
- Designed and executed experiments: from hypothesis testing, defining metrics, to visualizing results.
- Optimized NLP models via Regex and Hugging-face transformer models.
- Created technical and non-technical reports, including visualizations of research findings with tools like Matplotlib, Seaborn and Plotly.

2017 – 2021
United States

Research and Teaching Assistant
University of Massachusetts

- Designed and executed own research on Human Pose Estimation: developed code, presented and published findings.
- Developed the "Less Convoluted 3D Pose Estimator" model based on OpenCV.
- Collaborated with other research peers on mutual peer review cycles.

- Directed the undergraduate laboratory – overseeing classes, accessing students, and general administration of the labs and equipment.

2004 – 2014 Nigeria	**Senior Instrument / Project Engineer** *Shell Petroleum*

- Directed project engineering tasks: contractor management, scheduling, budgeting, and health and safety requirements.
- Successfully delivered the NGC Gas Station Metering Scope in 9 land stations within budget and with no lost man-hours due to health or safety.
- Designed front-end engineering of process control and safety systems for several facilities.
- Developed technical requisitions, technical assurance tasks like fire and gas mapping, and inspected and commissioned plant-wide control system.