

# Uche J. Okechukwu, M. Eng.

## Data Scientist & Machine Learning Engineer

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### Profile

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A Data Science and Machine Learning Engineer with a knack for delivering solutions on a wide variety of DS/ML topics. From developing an LLM-based Ted Talk Recommender Engine to delivering rigorous Data Research Studies for Performance and Marketing, my skills are as versatile as my enthusiasm for tackling new challenges. Experienced with working in diverse and cross-functional teams and eager to bring my knowledge, experience and enthusiasm to your company to solve problems and generate value for clients.

### Skills

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#### Programming

Python | SQL | R | GraphQL | Javascript | HTML | CSS  
| Bash

#### Natural Language Processing & Large Language Models

OpenAI | Hugging Face Transformers | LangChain |  
Llama

#### Data Visualization

Tableau | PowerBI | Matplotlib | Seaborn | Plotly

#### Data Collection and Wrangling

Requests | Selenium | Beautiful Soup

#### Machine Learning Libraries

Tensorflow Keras | PyTorch | Pandas | Numpy | SciKit Learn | Jupyter

#### Other ML & DS Skills

Streamlit | Docker | AWS | Chainlit | NeoJS

### Recent Projects

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2024/08	<b>SQL Chatbot: Using LangChain and OpenAI to query AWS-hosted SQL server</b> <a href="#">🔗</a>
2023/11	<b>Yelp Review Study: Collecting data on Yelp Reviews and conducting experiments for Originality.ai</b> <a href="#">🔗</a>
2023/11	<b>Ted Talk Recommender Engine using FAISS Semantic Search and T5 (Pytorch &amp; HuggingFace)</b> <a href="#">🔗</a>
2023/10	<b>Fact Checker Study: Building 5 LLM-claims datasets to assess the performance of an NLP-based fact-checker tool for Originality.ai</b> <a href="#">🔗</a>
2023/10	<b>Detecting Duplicate Quora Questions Tensorflow using LSTM and Semantic Search (Tensorflow)</b> <a href="#">🔗</a>
2023/06	<b>Automated Bank Loan Decision-Making Machine Learning with AWS Cloud Deployment</b> <a href="#">🔗</a>
2023/06	<b>Stock Prediction with Deep Learning and Reinforcement Learning</b> <a href="#">🔗</a>
2024/03	<b>Yelp Chatbot on Streamlit: LLM RAG chatbot that queries structured &amp; unstructured data on Yelp open datasets. Data hosted by Neo4js Graph DMS. Also integrates routing API</b> <a href="#">🔗</a>

## Education

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2023 – 2023	<b>Diploma in Data Science</b> <i>Lighthouse Labs</i>
2017 – 2021 Lowell, United States	<b>Electrical Engineering, Ph.D</b> <i>University of Massachusetts</i>
2016 – 2017 Lowell, United States	<b>Electrical Engineering, M.Eng.</b> <i>University of Massachusetts</i>

## Publications

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2019	<b>A Less Convoluted Approach to 3D Pose Estimation</b> ↗ <i>IEEE International Conference on Healthcare Informatics</i>
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## Professional Experience

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2024/01 – Present	<b>AI Engineer</b> <i>Scale AI (Remotasks &amp; Outlier)</i> <ul style="list-style-type: none"><li>Developed and refined prompts for training and fine-tuning large language models (LLMs).</li><li>Created evaluation rubrics to guide the training and assessment of LLMs.</li><li>Provided subject matter expertise in engineering and coding to support data generation and annotation for LLM training.</li><li>Ensured compliance with ethical and legal standards in the development of LLMs.</li><li>Collaborated in cross-functional teams to develop training data for specialized LLM.</li></ul>
2023 – 2023 Canada	<b>Data Scientist</b> <i>Originality.ai</i> ↗ <ul style="list-style-type: none"><li>Planned and delivered research studies: from data collection, wrangling and analysis to report writing and presentation.</li><li>Developed datasets via web scraping with Requests and Selenium, LLM prompting and SQL querying.</li><li>Designed and executed experiments: from hypothesis testing, defining metrics, to visualizing results.</li><li>Optimized NLP models via Regex and Hugging-face transformer models.</li><li>Created technical and non-technical reports, including visualizations of research findings with tools like Matplotlib, Seaborn and Plotly.</li></ul>
2017 – 2021 United States	<b>Research and Teaching Assistant</b> <i>University of Massachusetts</i> <ul style="list-style-type: none"><li>Designed and executed own research on Human Pose Estimation, presenting and publishing findings, providing peer review to other team members.</li><li>Directed the undergraduate laboratory – overseeing classes, assessing students, and general administration of the labs and equipment.</li></ul>
2004 – 2014 Nigeria	<b>Senior Instrument / Project Engineer</b> <i>Shell Petroleum</i> <ul style="list-style-type: none"><li>Designed front-end engineering of process control and safety systems for several facilities.</li><li>Developed technical requisitions, technical assurance tasks like fire and gas mapping, and inspected and commissioned plant-wide control system.</li><li>Directed project engineering tasks: contractor management, scheduling, budgeting, and health and safety requirements.</li></ul>