# **OLARINDE OLUBUNMI RACHEAL**

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# ABOUT ME

Results-driven Data Scientist and Machine Learning Engineer with a strong foundation in data analysis, predictive modeling, and deep learning. Strong background in data analysis, feature engineering, and model deployment with experience in Python, R, SQL, and cloud computing. Passionate about using Al/ML to drive business decisions and optimize model performance.

Transitioning from teaching and the arts, applying structured problem-solving, analytical thinking, and cross-functional collaboration to data science. Continuously upskilling through hands-on projects and formal training, including a Udacity AWS Machine Learning Scholarship and an MSc in Data Science. Seeking a data-centric role to leverage AI for real-world impact.

#### TECHNICAL SKILLS

Programming Languages: Python, R, SQL

**Data Science & Machine Learning**: Explorator Data Analysis, Statistical Analysis, Supervised & Unsupervised Learning, Statistical Modeling, Feature Engineering, A/B Testing

**Deep Learning**: Neural Networks, CNNs, Transfe Learning, Computer Vision, Natural Language Processing (NLP)

**Big Data & Cloud Computing:** AWS (S3, SageMaker, Lambda, EC2)

**Data Visualization & Analytics:** Tableau, Matplotlib, Seaborn, Pandas

**Tools & Frameworks:** TensorFlow, Keras, PyTorch, Scikit-Learn, OpenCV, NLTK, Gensim

# **PROJECTS**

https://github.com/Olubunmi-Amoke

# Sentiment Analysis (NLP)

- Built sentiment classification models using Word2Vec, GloVe, and Sentence Transformers; performed hyperparameter tuning to optimize performance.
- Evaluated model accuracy and F1-scores across all embeddings and selected the best-performing pipeline.
- Loaded and fine-tuned a pre-trained LLM from Hugging Face to summarize weekly review data and extract impactful events.
- Generated structured insights by grouping data at the week level and identifying top positive and negative drivers of customer sentiment.
- **Technologies**: Python, TQDM, Pandas, Scikit-Learn, Gensim, Sentence Transformers, Hugging Face Transformers, Matplotlib, Seaborn.

# **Landmark Classification Project (CNNs)**

- Built and fine-tuned deep learning models for landmark classification, improving test accuracy from 41% (custom CNN) to 79% (ResNet50 with transfer learning).
- Enhanced model generalization with advanced data augmentation techniques, batch normalization, and dropout.
- Developed reusable utility scripts for data preprocessing, training, and performance logging.
- Provided visualizations of training and validation loss/accuracy curves to evaluate model convergence.
- Technologies: Python, PyTorch, OpenCV-Python-Headless, Pillow, livelossplot, TQDM, Pytest.

# **ML Workflow for Scones Unlimited (AWS)**

- Designed an event-driven machine learning pipeline using AWS Sagemaker, Lambda and S3.
- Built and deployed an image classification model for logistics optimization, automating vehicle type detection.
- Instrumented and monitored the model endpoint using SageMaker Model Monitor, tracking drift and performance over time.
- Conducted inference testing and achieved 98% accuracy at a 95% confidence threshold.
- Built a stakeholder-facing visualization dashboard to display endpoint performance trends over time.
- Technologies: AWS (S3, Sagemaker, Lambda, Model Monitor), Python, Machine Learning.

# **EXPERIENCE**

### Primrose School at Rancho Sienna, Georgetown TX

Teacher Support | October 2020 - February 2025

- Implemented data-driven lesson plans to improve learning outcomes.
- Applied structured, detail-oriented approaches to planning—analogous to data validation in analytics workflows.
- Strengthened strong communication skills in simplifying complex concepts, applicable in cross-functional AI teams.

#### Mustard Seed Children Academy, Bentonville AR

Teacher | September 2018 - April 2019

- Integrated data-driven teaching strategies, refining curriculum based on student performance metrics.
- Developed strong communication skills in simplifying complex concepts, applicable in cross-functional AI teams.

#### Nigeria Cleaning Service Limited, Lagos Nigeria

Accounts Clerk | May 2008 - December 2008

- Managed financial transactions, maintained the general ledger, and processed vendor invoices.
- Ensured **timely and accurate billing and collections**, improving the company's **cash flow management**.
- Utilized **attention to detail and organizational skills**, transferable to data validation and documentation in AI/ML workflows.

# **EDUCATION**

#### Eastern University, PA

Master of Science in Data Science

August 2024 - July 2025

#### Completed Courses:

- Data Manipulation, Data Science for Business, Data Analytics in R
- o Data and Database Management with SQL, Cloud Foundations
- Fundamentals of Machine Learning Models, Applied Machine Learning, Natural Language Processing

#### Ongoing Courses:

 Ethical and Philosophical Issues in Data Science, Data Science Capstone: Smart Sickle Diary App - A Machine Learning App for Pain and Emotion Monitoring

#### University Of Texas at Austin, TX

<b>Obafemi Awolowo University, Ile-Ife, Nigeria</b> Bachelor of Arts in Music	2011 - 2013
The Polytechnic Ibadan, Ibadan, Nigeria Associate's degree in Music Technology	2009 - 2010
CERTIFICATIONS	
Udacity Nanodegree  - AWS Machine Learning Engineer - AWS Machine Learning Fundamentals - AI Programming with Python	2023 - 2024
Codecademy - Machine Learning/AI Engineer - Data Scientist: Natural Language Processing - Data Scientist: Machine Learning	2022 - 2024

# **SCHOLARSHIPS**

- AWS & Udacity Al/ML Scholar (2023, 2024)

   Selected among top applicants for advanced Al/ML

   Hands-on experience in cloud-based model deployment, deep learning, and automation.