Boluwashola Nelson OGUNSOLA

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CAREER OBJECTIVE

Results driven Machine Learning Engineer with 2 years of experience designing, deploying, and optimizing scalable ML solutions to solve complex challenges. Adept at building end-to-end pipelines from data preprocessing, and model development to deployment and monitoring. Proven expertise in natural language processing (NLP), computer vision, and predictive analytics, with a strong focus on delivering measurable impact through data-driven decision-making.

EDUCATION

Osun State University, Osogbo, Osun State, Nigeria.

Nov. 2022

B.Eng. Civil Engineering

Relevant Coursework: Applied Mathematics, Structural Analysis, Computational Methods, Introduction to Java

TECHNICAL SKILLS

Languages & Tools: Python, R, JavaScript, SQL, HTML/CSS

Libraries/Frameworks: scikit-learn, pandas, NumPy, Flask, React.js, Streamlit, Matplotlib, seaborn

ML Techniques: Linear regression, Logistic Regression, Support Vector Machine (SVM), Cross-Validation, GridSearchCV, Regularization, ROC/AUC, Confusion Matrix

AI & NLP: Retrieval-Augmented Generation (RAG), LLM integration, Gemini API

Dev Tools: Git, GitHub, Render (Deployment), VS Code

Data Handling: Data Preprocessing, Feature Engineering, Model Evaluation

EXPERIENCE

Intern

Armastus Tech Hub, Osogbo, Osun State

May 2021 - Nov. 2021

- Collaborated with project managers to ship websites with AI features
- Built an interactive agent using LangChain and OpenAl APIs capable of citing sources and reasoning over custom document embeddings.
- Designed and deployed LLM-based semantic search and question-answering systems using RAG architecture with FAISS.

• Cleaned and prepared datasets for model optimization and training.

MACHINE LEARNING PROJECTS

Heart Disease Prediction Web App

- Built and deployed a predictive web app using Logistic Regression, GridSearchCV, and AUC/ROC scoring
- Designed the frontend in Flask and integrated with a trained ML model
- Handled data preprocessing, hyperparameter tuning, and model deployment on Render

Chess Rule Assistant with RAG & Gemini API

- Developed a Retrieval-Augmented Generation tool using LLMs to explain complex chess rules
- Integrated Gemini API for real-time natural language queries and factual grounding

Medical Diagnosis Classifier (In Progress)

- Implementing regularized Logistic Regression to predict multi-class medical diagnoses
- Focus on improving performance via feature selection and evaluation metrics

ADDITIONAL PROJECTS

- Frontend-Backend Integration: Built multiple full-stack apps integrating React.js with Flask APIs
- R Programming Projects: Used tidyverse for exploratory data analysis and visualization in

CERTIFICATIONS & LEARNING

Kaggle GenAl Intensive Course – [Completed]

Certificate of Competence and Proficiency in Human Resource Management – [Completed]

Certificate of Competence and Proficiency Project Management Professional – [Completed]

Certificate of Competence and Proficiency in Business Strategy and Entrepreneurship development – [Completed]

SOFT SKILLS

Fast Learner | Problem Solver | Collaborative | Research-Oriented | Technically Curious