



MUHAMMED JOHN

JUNIOR DATA SCIENTIST

ML DEPLOYMENT • BUSINESS SOLUTIONS • RAG SYSTEMS

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PROFESSIONAL SUMMARY

3rd-year Data Science and AI Engineering student at ENSAF with 6+ production-grade ML projects delivering measurable business impact. Hands-on experience building computer vision systems (92% accuracy), developing predictive models, and implementing full-stack solutions with TensorFlow, Flask, and React. Experience in Retrieval-Augmented Generation systems and AI deployment. Demonstrated ability to solve real-world challenges like agricultural disease detection and customer churn prediction. Seeking data science internship to apply technical skills in high-impact business solutions.

TECHNICAL SKILLS

- **Programming Languages:** Python, SQL, R (Basic), Java, C/C++, JavaScript
- **Machine Learning/AI:** TensorFlow/Keras, Computer Vision, Scikit-learn, XGBoost, SMOTE, GridSearchCV, Langchain, ollama, RAG Systems
- **Data Engineering:** Pandas, NumPy, SQL, Feature Engineering, Data Cleaning
- **Deployment:** Flask, Streamlit, Docker, FastAPI, Git/GitHub
- **Visualization:** Matplotlib, Seaborn, Excel Dashboards
- **Frontend:** React, HTML/CSS, Material-UI
- **Environments:** Jupyter Notebook, Google Collab, VS Code, Linux

PROJECTS

Portfolio RAG System | Ollama • FAISS • Flask • Docker

- Developed locally deployable Retrieval-Augmented Generation system for interactive portfolio Q&A
- Integrated Llama3.2 for response generation and mxbai-embed-large for semantic search
- Created interactive visualizations for skills, technologies, and certifications; containerized with Docker

Potato Leaf Guardian: Crop Disease Detection | TensorFlow • React • Flask

- Built CNN model detecting Early/Late Blight with 92% accuracy using transfer learning
- Developed farmer-friendly React interface to upload potato leaf image
- Containerized model with Docker for local deployment via Flask API
- Processed 15,000+ leaf images with data augmentation techniques

Customer Churn Prediction System | TensorFlow • Streamlit • SMOTE

- Created neural network classifier (ANN) with 85% recall for high-risk telecom customers
- Engineered dynamic thresholds to align predictions with business KPIs
- Deployed as interactive Streamlit app for real-time probability checks

Bangalore Housing Price Estimator | Flask • XGBoost

- Trained regression model ($R^2=0.88$) on 10k+ property listings
- Developed feature engineering pipeline addressing data skew
- Served predictions via Flask API with interactive frontend integration

Marketing Spend Optimization | Scikit-learn • Pandas

- Identified optimal ad channels through regression ($R^2=0.988$)
- Delivered actionable insights for budget reallocation

UK Road Accident Analytics | Excel • Data Visualization

- Analyzed 300k+ records to identify high-risk zones
- Built interactive dashboards for safety decision-making

EDUCATION

MSc in Data Science & AI Engineering 2022-2027

ENSAF – École Nationale des Sciences Appliquées de Fès

Relevant Coursework: Machine Learning, Computer Vision, Statistical Modeling

High School Diploma 2018-2021

Nusrat Senior Secondary School, The Gambia

EXPERIENCE & LEADERSHIP

Secretary General | Gambian Students' Association in Morocco (GASAM) 2024-2025

- Advocate for 100+ students with academic institutions
- Organized cultural and academic events for community building
- Managed digital communications across multiple platforms

CERTIFICATIONS

- Generative AI & Data Literacy (DataCamp)
- Machine Learning (Kaggle)
- AI Fundamentals with IBM SkillsBuild (Cisco Networking Academy)
- Python Programming (HackerRank)
- SQL & Database Design (Oracle Academy)

LANGUAGES

English (Fluent) | **French** (Intermediate) | **Spanish** (Beginner)