# KHALID AHMAD

No 19 Rankie Street Lokoja, Kogi State.

⊕ Homepage 🜙 +2348167629052 💌 ahmadkhalidhussain408@gmail.com 🚡 Linkedln 👩 GitHub

## Education

# Federal University, Lokoja

Sep. 2018 - Oct 2023

Bachelor of Science in Computer Science CGPA: 4.75/5.00, Top 1% of Class

Lokoja, Nigeria

# Technical Skills

Languages & Frameworks: Python, JavaScript, HTML, CSS, SQL, Flask, Bootstrap, Streamlit Machine Learning & AI: PyTorch/TensorFlow, Scikit-learn, OpenCV, NumPy, Pandas, NLTK, Gensim, Matplotlib Developer Tools & Other Technologies: Git, Docker, VS Code, Jupyter, GitHub, Slack, Azure, MySQL, Hugging Face

Research Experience

Wale Lab Feb 2025 – Present

Research Intern

Lagos, Nigeria

- Conduct literature reviews on AI applications in healthcare, specifically for the early detection of sickle cell disease.
- Analyze existing machine learning models for medical diagnosis and evaluate their effectiveness in detecting sickle cell disease.

## Federal University, Lokoja

Oct 2022 - Sep 2023

Research Assistant

Lokoja, Nigeria

- Led development of a GPA prediction system using machine learning, achieving 81% accuracy with Random Forest and showcasing results at a university symposium.
- Managed team coordination and project timelines, ensuring successful milestone delivery for predictive analytics research.
- Designed a deep learning-based road anomaly detection system, curating and labeling Nigerian roadway datasets for model training.
- Achieved 98% detection accuracy in identifying road faults and potholes using computer vision techniques.

## **Publications**

- Khalid, H.A., Fati O.O., Faruk, A., & Ismail, A. (Manuscript in Progress). Random Forest-Based Predictive Model for Estimating First-Year GPA in Nigerian Tertiary Institutions.
- Khalid, H.A., & Fati O.O. (2025). A Real-Time Road Anomaly Detection via Masked Autoencoder-Enhanced Vision Transformers. International Journal of Innovative Research in Engineering & Management. Available from: https://doi.org/10.55524/ijircst.2025.13.3.25
- Kossy, S., Saidu, M., Khalid, H.A., Ogeah, P.U., Bakare-Abidola, T., Aanuoluwa, T.I., & Obafemi, A.B. (2025). Advancing Environmental Sustainability through Emerging AI-Based Monitoring and Mitigation Strategies for Microplastic Pollution in Aquatic Ecosystems. World Journal of Biology Pharmacy and Health Sciences. Available from: https://doi.org/10.30574/wjbphs.2025.22.2.0438

# Teaching Experience

#### Isah Mustapha Agwai I Polytechnic

Jan 2024 - Nov 2024

Assistant Lecturer

Lafia, Nigeria

- Taught Python programming and core CS topics to 75 students, including Discrete Structures, Theory of Computation, and Web Development.
- Used Jupyter Notebooks and GitHub for hands-on coding and collaboration.
- Graded projects and provided personalized feedback and mentorship.
- Engaged in workshops and the Miva Conference on AI in Nigeria's digital economy.

# Federal University, Lokoja

Mar 2019 - Jul 2023

Academic Tutor

Lokoja, Nigeria

Lokoja, Nigeria

- Tutored 1000+ students in Physics, Mathematics, Statistics, and Programming, focusing on core topics like Linear Algebra, Calculus, and Probability.
- Assisted peers in teaching Computer Science subjects including OS, Discrete Structures, Compiler Design, Algorithms, and ML.

## Cali Vision Academy

Feb 2021 - Sept 2022

ICT Instructor

- Taught secondary school students IT fundamentals, software tools, and introductory programming.
- Designed and implemented an engaging IT curriculum with structured lesson planning and assessments.

# Industrial Experience

Omdena Feb 2025 – May 2025

Machine Learning Engineer

New York, USA — Remote

- Worked on a Smart Farming project aimed at enhancing agricultural productivity in Kano State, Nigeria.
- Conducted literature reviews to identify best practices for model development in precision agriculture.
- Supported dataset preprocessing of 148,666 records and performed feature engineering using soil moisture data to classify plant indicators.
- Trained a Random Forest model to classify plant indicators based on soil moisture, achieving 99% accuracy.

Engineeum

Jan 2025 – Mar 2025

Machine Learning Instructor

Lagos, Nigeria — Remote

- Taught data analysis and machine learning concepts using Python, focusing on libraries such as NumPy, Pandas, Matplotlib, and Seaborn.
- Covered a range of ML topics, including supervised/unsupervised learning, linear regression, and time series analysis.
- Designed course materials and guided students in applying ML techniques to real-world scenarios.
- Evaluated and provided constructive feedback on student assignments.

## Saint Louis University

Jun 2023 - Jul 2023

Data Analyst

 $\mathit{USA} - \mathit{Remote}$ 

- Collaborated with Globalshala's Marketing team to collect, clean, and transform data for analysis.
- Generated cost-saving recommendations for the Finance team through data insights.
- Created impactful visualizations and presentations using Python, SQL, and Power BI.

# Nigerian Midstream & Downstream Petroleum Regulatory Authority

Mar 2022 - Aug 2022

Data Scientist Intern

Lokoja, Nigeria

- Analyzed petrol samples from Lokoja filling stations for signs of adulteration.
- Preprocessed data using normalization and encoding techniques in Python.
- Implemented Logistic Regression, Decision Trees, Random Forest, and SVM; achieved 75% accuracy in classification.

### Al-Harir Global Services

Jan 2021 - Jan 2022

Frontend Developer

Lokoja, Nigeria — Hybrid

- Collaborated with designers to build an engaging UI for a marketing-focused landing webpage.
- Developed responsive layouts using HTML, CSS, and JavaScript to improve user experience.

## Honors & Awards

- Wale Lab Fully Funded Research Internship 2025: Awarded a fully funded internship for research on AI applications in healthcare.
- Departmental and Faculty Fee Waiver 2023: Granted a fee waiver for exemplary academic performance and active engagement within the department and faculty.
- Ayomide Ajiboye Foundation Scholarship and Mentorship Scholar (USA) 2023: Awarded for academic excellence, providing both financial support and mentorship for professional development.
- Student Tutor of the Year 2023: Recognized for exceptional tutoring skills and dedication to supporting peers in achieving academic success.
- Department Contribution Award 2022: Acknowledged for significant contributions to departmental initiatives, including research and academic events.
- Letter of Recommendation (NMDPRA) 2022: Received a letter of recommendation for exceptional performance and contributions while working with the Nigerian Midstream and Downstream Petroleum Regulatory Authority.
- Dean's Honor Award for Outstanding Academic Performance 2020 to 2023: Honored for consistent academic excellence, maintaining top-tier performance throughout my studies.
- Kogi State Bursary Scholar 2020: Awarded a bursary in recognition of academic achievement and financial need, supporting my higher education journey.

# Conferences & Workshops

- Deep Learning IndabaX Nigeria: AI-Driven Innovation for a Digital Economy in Nigeria (2 days) June 2024
- Deep Learning IndabaX Nigeria: Human-Centric AI for a Digital Nigeria (2 days) May 2023
- National Association of Computing Students (NACOS) Workshop, FUL Chapter Aug 2022
- Guest Lecture: Exploring Technology Hotspots: The Impact of Mathematics on Computer Science by Khalid Ahmad
- Data Science Nigeria: Artificial Intelligence Invasion (5 days)