

JOSHUA OLUWATIMILEYIN SALAKO

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<https://joshsalako.github.io/>

OBJECTIVE

To advance the frontiers of Artificial Intelligence (AI) and Machine Learning (ML) by conducting impactful research that addresses critical societal challenges in health, education, and sustainable development. I aim to contribute to the development of efficient, interpretable, and inclusive AI systems. My long-term goal is to excel as a research professor, fostering innovation, and mentoring the next generation of AI scholars

EDUCATION

AUG 2019 - AUG 2024 Federal University of Agriculture, Abeokuta (FUNAAB), Nigeria
Bachelor of Engineering (BEng) in Electrical and Electronics Engineering
C.G.P.A: 4.40/5.00 (Second Class Honours - Upper Division)

SKILLS

- Data Science and Machine Learning (Scikit Learn, TensorFlow, PyTorch, Computer Vision, NLP)
- Experienced in data collection, preprocessing, and analysis for research projects
- Skilled in collaborative research, peer-reviewed writing
- Engineering and technological practices
- Project Management and Supervision
- Python programming (Pandas, NumPy, Matplotlib, Beautiful Soup, Streamlit)
- Mobile Development (Flutter)
- Backend Development (Django, Flask, FastAPI)
- Proficiency in Google Workspace
- Soft Skills

EXPERIENCE

- Jan 2024 - Oct 2024 **AI Lead**, NUTEC (a subsidiary of Nigerian Union of Engineering Students Association (NUESA), FUNAAB Chapter)
- Conceived and executed a comprehensive AI education initiative, empowering engineering students with in-demand skills in AI, ML, and Data Science
 - Voluntarily developed and taught curriculum-aligned workshops
 - Fostered a collaborative community through weekly meetups, encouraging peer-to-peer learning, and industry-relevant project development
 - Culminated the program with a hackathon, assessing student progress, and recognizing outstanding projects
- Oct 2024 **Poster Presenter**, Data Science Nigeria (DSN) AI Bootcamp 2024
Participated in the DSN AI Bootcamp and presented a poster titled "Fish-NET: Advancing Aquaculture Management through AI-Enhanced Fish Monitoring and Tracking" on Computer Vision

Aug 2023 - Nov 2023	AI Researcher (Intern), ADA Global Concept <ul style="list-style-type: none"> Co-authored a peer-reviewed research paper on deep learning methodologies, published in a reputable journal Designed, implemented, and evaluated multiple deep learning models using TensorFlow and PyTorch, achieving state-of-the-art performance on the Nigerian Catfish Dataset Conducted comprehensive literature reviews, identifying knowledge gaps and contributing novel insights to machine learning
Aug 2023 - Dec 2023	Engineering Project Supervisor (Intern), Ardova Plc Actively involved in the supervision and development of several projects on-site which include; <ul style="list-style-type: none"> Decommissioning of 20 oil tanks (PMS, AGO, and ATK) and a base oil plant Construction and fabrication of 9 base oil tanks from foundation to priming and installation Installation of automated valves, induction motors, and earthing system of the petroleum distribution facility Construction of a 20 thousand metric tonne LPG storage facility (largest in West Africa)
Feb 2023 - Apr 2023	Electrical Engineer (Intern), Drugfield Pharmaceutical Limited <ul style="list-style-type: none"> Collaborated with the cross-functional Engineering team to design, install, and integrate complex control panels for a cutting-edge, state-of-the-art manufacturing plant Spearheaded the maintenance and upkeep of sophisticated electrical equipment and systems, guaranteeing 99%+ uptime and reliability across the entire manufacturing facility
May 2022 - Aug 2022	Data Analyst, Techtrend Africa <ul style="list-style-type: none"> Designed and deployed a scalable recommender system using Python, Scikit-learn, and collaborative filtering, achieving a 15% improvement in recommendation accuracy and a 20% increase in user engagement. Developed and implemented a time-series forecasting model utilizing ARIMA, enhancing demand planning accuracy by 25%, reducing inventory costs by 12%, and improving supply chain efficiency
Apr 2022 - May 2022	Training Facilitator, DSN Volunteered to facilitate AI Invasion 2022, a free AI training class, mentoring over 150 students on the basics of Artificial Intelligence and practical applications
Jan 2022	Student Tutor, NUESA, FUNAAB Chapter Volunteered as a tutor for lower-level students, fostering academic growth and confidence through group workshops
Aug 2021 - Oct 2024	Core Team Member, FUNAAB DSN Artificial Intelligence Student Club <ul style="list-style-type: none"> Played a pivotal role in shaping the club's vision and strategy, driving student engagement, and cultivating a vibrant community of AI enthusiasts

- Conceptualized and executed innovative programs, workshops, and events that enhanced members' technical skills, industry knowledge, and networking opportunities

PUBLICATIONS

- Salako, J., Ojo, F. and Awe, O. O. (2024) "Fish-NET: Advancing Aquaculture Management through AI-Enhanced Fish Monitoring and Tracking", *AGRIS on-line Papers in Economics and Informatics*, Vol. 16, No. 2, pp. 121-131. ISSN 1804-1930. DOI 10.7160/aol.2024.160209
- Salako, J., Awe, O. O., Rodrigues, P. C., Dukhi, N., Dias, R. (2024) "A Comparative Exploration of SHAP and LIME for Enhancing the Interpretability of Machine Learning Models in Obesity Prediction" In Awe, O.O., Vance, E.A. (Eds.), *Practical Statistical Learning and Data Science Methods*, pp. 253-281. Springer. DOI: 10.1007/978-3-031-72215-8_11

AWARDS

- Recipient of the prestigious Senator Olamilekan Yayi Undergraduate Scholarship Award (2023/2024) for outstanding academic achievement
- AWS AI & ML Scholarship Program - received a scholarship for Udacity AI Programming with Python Nanodegree program (worth \$4,000)
- Google Solution Challenge - Awarded a Certificate for submitting a solution in the 2022 and 2024 Solution Challenge hosted by Google Developer Student Clubs.

INDEPENDENT COURSEWORK

- AI Programming with Python Nanodegree	Udacity	- Data Scientist with Python Track	Datacamp
- AWS ML Foundations		- ML Fundamentals with Python Track	
- Machine Learning Fundamentals			
- Deep Learning Specialization	Coursera		

PROJECTS

- **Computer Vision** - [CLI Image Classifier Application](#)
 - Trained a deep neural network on a user-defined dataset of images, saving the model as a checkpoint for future use
 - Deployed the model to make real-time inferences on image classes
- **Natural Language Processing (NLP)** - [English to Yoruba Machine Translator](#)
 - Fine-tuned a Multilingual Transformer Model (MT5) for English-to-Yoruba Neural Machine Translation, achieving a BLEU score of 12 on the Menyo-20k_MT dataset
 - Implemented Data Preprocessing Techniques including text normalization and sentence filtering, showcasing an understanding of data quality's impact on model performance
 - Developed Custom Dataset and Dataloader Classes using PyTorch to handle sequence-to-sequence translation data efficiently
- **Mathematics** - [Pi Digits Generator Application](#)
 - A web-based application that generates π to very large number of decimal places
- **Time Series** - [Currency Foreign Exchange Rate Prediction](#)
 - Web-based application that uses ARIMA and Prophet model to forecast foreign exchange rates

- **Computer Vision** - [AI-Generated Image Detector](#)
 - Developed a model that detects an AI-generated image from real human-created images
- **Machine Learning** - [Nollywood Movie Recommender System](#)
 - Developed a recommendation model to provide personalized movie suggestions to Nollywood fans
- **Mobile Development** - [Mobile Veterinary Telemedicine Application](#)
 - Designed and developed a user-centric mobile app connecting pet owners with local veterinary professionals using Google Maps API and Flutter
 - Implemented secure user authentication and authorization
 - Built an intelligent appointment scheduling system with real-time availability and a customizable notification system

INTERESTS

- Languages: English, Yoruba (Native)
- Extracurriculars: Video games, Music

REFEREES

Available on request