

OLALEKAN AKINBOSOYE OKEWALE

Sw9/987 Ajelore Elewura Street, Challenge Nigeria Ibadan, Oyo State, 234002
Mobile Number: + (234) 806 627 8204 | **Email:** okewale.akinbosoye@gmail.com
<https://www.linkedin.com/olalekanokewale>

RESEARCH INTERESTS

Analyzing the Utilization of Artificial Intelligence:

Machine Learning	Deep Learning	Natural Language Processing
Methodologies	Data Approaches	System Approaches

EDUCATION

University of Ibadan, Ibadan Oyo State, Nigeria 2022
MSc. Computer Science (GPA 5.8/7.0)

University of Ibadan, Ibadan, Oyo State, Nigeria 2014
MSc. Electrical Electronics Engineering (GPA 5.4/7.0)

Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria 2009
BTech. Computer Engineering (GPA 4.12/5.0)

RESEARCH EXPERIENCE

Computational Intelligence in Healthcare ([CRC Press](#)) 2023
Evaluation of Deep Image Embedders for Healthcare Informatics Improvement using Visualized Performance Metrics

Collaborators: Taiwo Olaleye, I. Solanke, Alomaja

Summary: The study deployed five deep image embedders to extract feature vectors from X-ray and CT scan image signals of both positive and negative cases of COVID-19. We employed machine learning algorithms (MLP deep, SVM and Random Forest) to build an intelligent diagnostic model on patterns recognized from the feature vectors to predict the COVID-19 status of new X-ray or CT scan image inputs. The MLP deep learner returned the best result on the VGG16 and VGG19 embedded datasets. I also reviewed the literature, compared architecture algorithms, and created charts.

CEUR Workshop Proceedings ([ceur-ws.org](#)) 2022
Evaluation of Vader and MultiLingual Sentiment Analyzers for Opinion Analytics using Graphical Illustrations

Collaborators: Taiwo Olaleye, Peter Ugege, and Olatunji Akinade

Summary: We evaluated the performances of the Vader-based lexicon sentiment analyzer and the MultiLingual sentiment analyzers through opinion mining analytics of football tweets. Two tweet corpus of 1000 tweets each, comprising 141371 and 127072 from the hashtags #NGRTUN and #GNBNGA, respectively. It was shown that the MultiLingual analyzer worked with tweets of shorter phrases and returned unigram of local dialects than the Vander approach. I also reviewed literature, compared architecture algorithms, and created charts.

5th Information Technology for Education and Development (ITED) ([IEEE](#)) 2022
An ensemble statistical evaluation of medical image embedding with SqueezeNet neural network

Collaborators: Solanke Ilesanmi, Agbaegbu JonhBosco, Wilson Ahiara, Janet Akiode, Uchenna Udeani, and Taiwo Olaleye,

Summary: We used the SqueezeNet deep embedder on computerized tomography scan signals for feature extraction of pneumonia attributes. An ensemble statistical tool was used for the evaluation after the feature selection of significant attributes by analysis of variance. The experimental result returned an external data attribute as one with the most discriminative information for pneumonia detection to answer the research question that seeks to discover the most significant data feature. An interquartile range of 40000 to 240000 with a dispersed probability density function in the second quartile also indicated a positive case of pneumonia. I also reviewed literature, compared architecture algorithms, and created charts.

Directorate of Pan African University for Life & Earth Sciences Institute

2022

A time-stamped and multi-class Ekman mood theory analysis of Octogenarians (awaiting publication)

Collaborators: Temitope Abioye, Emmanuel Ofoegbonna, Taiwo Olaleye

Summary: We employed Paul Ekman's emotional theory to analyze the time-stamped real-time opinions of Octogenarians to classify their emotional mood within a timeline, thereby unravelling the spontaneity of their moods during the course of using mobile health applications. The experimental result returned Surprise, Joy and Fear as the only classes of Ekman's postulations exhibited by the Octogenarians, with Surprise as the most dominant throughout the timeline despite being exhibited by only four respondents out of the entire population. I also reviewed literature, compared architecture algorithms, and created charts.

PROFESSIONAL EXPERIENCE

Pan African University Life and Earth Sciences, University of Ibadan

Jan. 2021 – Aug. 2023

ICT Officer

- Responsible for IT infrastructure and maintenance of computer systems and ensured standardization and Standard Operating Procedures (SOPs) were in place for the institute office concerning ICT.
- Keenly monitored and resolved conflicts in newly implemented software while analyzing alternative configurations and implementing effective solutions
- Worked closely with the product team throughout solution architecture design and implementation activities.
- Developed and led large-scale technology initiatives for long-term strategic plans and solutions.
- Utilized machine learning tools (R-programming) to select features, create, and optimize classifiers.
- Developed student performance prediction systems with supervised machine learning algorithms (regression) and provided technical expertise in data storage structures, mining, and cleansing.

Federal University, Oye-Ekiti, Nigeria, Polytechnic Ibadan Center

Jan. 2022 – Apr. 2023

Adjunct Lecturer

- Lectured undergraduate students on digital signal processing, simulation and modelling, microprocessor and system interfacing and software engineering and its practices.
- Utilized curricula that reflected the diverse educational, cultural, and linguistic backgrounds of the students served.
- Deliver lectures, lead discussions, and facilitate hands-on laboratory sessions.
- Advise and mentor students on academic and career-related matters as well as conducting research in the field of computer science and contribute to scholarly publications.

Opal System Solutions, Ibadan, Oyo State, Nigeria

Aug. 2019 – Dec. 2020

Software Engineer

- Processed support requests from customers and employees through troubleshooting and debugging software in the production cycle.
- Developed different machine learning models and deployed them to the Heroku platform using Streamlit and Flask for testing.
- Utilized SQL, C#, ASP.NET, JavaScript, HTML5, CSS3, MSSQL, and Angular to provide a modern standard-based solution to common business challenges.

- Developed a mobile and web application for a financial institution that automated processes and increased revenue by 50% within two months of implementation.
- Developed mobile applications for the firm and clients using Android Studio.

Ilesa City Polytechnic, Ilesha, Osun State, Nigeria

July 2017 – July 2019

Lecturer

- Taught undergraduate student of computer science on computer programming language (Java, COBOL)
- Oversee the ICT units of the institution.
- Prepare lecture materials on computer architecture and operating system as well as impacting the students on how to carried out an academic research.
- Engage with the local tech community and industry partners to facilitate student internships and job placement.

The Emmakulate Limited

Aug 2012 – May 2017

Director of Microsoft Education

- Monitored and assigned resources appropriately to streamline project efficiency and maximize deliverable outputs.
- Analyzed project progress and, when necessary, adapted scope, timelines, and costs to ensure that the team adhered to project requirements.
- Redesigned the computer network architecture across all the partner schools (25) in Nigeria.
- Designed and implemented new network solutions and/or improved the efficiency of current networks across all the partner schools (25) in Nigeria.
- Installed, configured and supported network equipment, including routers, proxy servers, switches, WAN accelerators, DNS and DHCP.
- Instructed students on website development using PHP/MYSQL, ASP.NET, Oracle, and Microsoft and also administered candidates for a professional examination.
- Instructed students on statistical packages like SPSS, SAS and Accounting packages (Peachtree, Turbo cash)

TECHNICAL COMPETENCIES

Machine Learning	Scikit-Learn, TensorFlow, Pytorch, OpenCV, NLTK.
Data Science	SQL, Pandas, Matplotlib, Seaborn, Folium, Plotly, Tableau, PowerBI, Streamlit.
Software Engineering	Java, Python, FastAPI, NodeJs, Django, GraphQL, PHP/MySQL, Docker, CI/CD.
Others	Open-Source Development, Web Scraping, Cloud Computing with GCP, AWS.

PUBLICATIONS AND PRESENTATIONS

Olaleye, T. O., **Okewale, A. O.**, Solanke, I., Alomaja, O. V., Adebayo, O. F., & Akintunde, S. M. (2023). Evaluation of deep image embedders for healthcare informatics improvement using visualized performance metrics. In *Computational Intelligence in Healthcare* (pp. 115-135). CRC Press.

Olaleye, T., Ugege, P., **Okewale, O.**, Akinade, O., Akintunde, S., & Akparanta, C. (2022). Evaluation of Vader and MultiLingual sentiment analyzers for opinion analytics using graphical illustrations. *CEUR Workshop Proceedings (CEYR-WS.org)*

S. Ilesanmi., JohnBosco, A., Ahiara, W. C., Akiode, J., Udeani, U., Olalye, T., & **Okewale., A. O.** (2022). An ensemble statistical evaluation of medical image embedding with SqueezeNet neural network. *5th Information Technology for Education and Development (ITED)*, Abuja, Nigeria, 2022, pp. 1-6. DOI: 10.1109/ITED56637.2022.10051407.

Development of Deep-learning Based Violence Anomaly Detection in Surveillance Videos, MSc Project (2021)

Development of a High-Capacity Solar-Charged Controller, MSc Project (2014)

Development of Health Insurance Scheme and Record Management in Mobile Electronic Health Services, BSc. Project (2009)

VOLUNTEER & COMMUNITY SERVICE

Hamoye Artificial Intelligence 2023

DevOps and Cloud Engineer

- Led the development and implementation of a project on employee attrition using a machine learning algorithm and deployment on a streamlit cloud server.

Artificial Intelligence Saturday 2022 – 2023

Community Lead

- Organized data science technical and soft skills training impacting over 3,000 students to bridge the gap between learning and becoming industry-grade.
- Taught over 400 students various topics across machine learning, data science, and technical skills needed to function in an industrial setting.

Opal System Solutions Programme 2020 – 2021

- Prepared an immersive, intermediate-to-professional curriculum for both male and female mentees across Western Africa and mentored them, with 90% of my mentees now working professionally across the data analyst sphere.

CONFERENCES AND WORKSHOPS

Society for the Advancement of ICT and Comparative Knowledge (SOCTHADICK) Nov. 2023

ICT and Knowledge Generation for Innovation and Industrial Development

Nigeria Computer Society International Conference Aug. 2023

Communications and E-systems for Economic Stability

Indabax Nigeria, Human Centric AI for Digital Economy Feb. 2023

How the AI revolution will free humans up for more creative and intellectually fulfilling activities

International Conference on Computational Linguistics and Intelligent Systems Poland July 2022

Delivered my original research paper “*Evaluation of Vader and Multilingual Sentiment Analyzers for Opinion Analytics using Graphical Illustrations.*”

International Workshop on Computational Special Functions and Their Applications Online May 2022

How to use theoretical and computational aspects of special functions and their applications in other branches of Science with MATLAB.

International Artificial Intelligence Workshop on Recommender Systems Online April 2022

How to use machine learning and deep learning to develop an end-to-end recommender system, as well as the deployment of AI innovation and Business Development

PROFESSIONAL DEVELOPMENT TRAINING AND CERTIFICATION

Pan African University Commission/African Union Communications and Website 2022

Development Onsite Workshop, Yaounde, Cameroon

Computational Linguistics & Intelligent Systems Virtual Conference 2022

Artificial Intelligence Virtual Workshop on AI Innovation & Business Development 2022

International Workshop on Computational Special Functions, MathTech Thinking Foundation 2022

International Society for Knowledge Organization, Onsite Workshop 2021

AWARDS AND HONORS

Pan African University of Life and Earth Sciences Institute, University of Ibadan
Best Performing Staff of the Year Award

2021

Ladoke Akintola University of Technology
Best Java programmer in Computer Science and Engineering

2008

LANGUAGES

English: Proficient in Listening, Speaking, Reading, and Writing

PROFESSIONAL AFFILIATIONS

- Member, Council for Regulation of Engineering Practice in Nigeria (COREN)
- Member, Nigerian Society of Engineers (NSE)
- Member, Nigeria Computer Society (NCS)
- Member, Computer Professionals of Nigeria (CPN)
- Member, International Society for Knowledge Organization (ISKO-WA)
- Member, Institute of Electrical Electronics Engineering (IEEE)
- Member, Professional Management Institute (PMI)

REFERENCES

Prof. Adesesan B. Adeyemo

Head of Department,
Department of Computer Science,
Faculty of Science, University of Ibadan.
ab.adeyemo@mail.ui.edu.ng or sesanadeyemo@gmail.com

Prof. John B. Oladosu

Head of Department,
Department of Computer Engineering,
Faculty of Engineering,
Ladoke Akintola University of Technology.
jboladosu@lautech.edu.ng or johnoladosu@gmail.com

Prof. Bolanle F. Oladejo

Department of Computer Science,
Faculty of Science, University of Ibadan.
fb.oladejo@mail.ui.edu.ng or oladejofaith023@gmail.com