# ADEMOLA, AKOREDE ADEJARE

Email: akorede.ademola@yahoo.com

Portfolio: https://akobabs.githu.io | Github: https://github.com/akobabs

## EDUCATION

**Federal University Oye-Ekiti, Ekiti State | www.fuoye.edu.ng**

Bachelor of Science (Computer Science)                          Jan., 2019 – May., 2023

**Oduduwa University, Ipetumodu, Osun State | www.oui.edu.ng**

B. Engr Computer Engineering *(Transferred)*                    Mar., 2016 – May., 2018

## RESEARCH EXPERIENCE

**XAI Laboratory, Benson Idahosa University, Edo State, Nigeria**

*Laboratory Assistant (Virtual)*

Supervisor: Dr. Betty O. Ahubele

*Mar. 2025- Present*

- **Support in writing technical reports, research papers, and grant proposals for AI-driven healthcare and agricultural innovations.**
- **Explainable AI for Genomic Variant Interpretation: Enhancing Transparency and Accuracy in Precision Medicine**
  - ❖ Conduct research on explainable AI (XAI) methodologies to improve model transparency and interpretability in genomic variant interpretation.
  - ❖ Develop machine learning models for precision medicine, focusing on enhancing the reliability of AI-driven genetic diagnostics.
- **Explainable AI for Early Detection and Diagnosis of Zoonotic Diseases in Livestock: A Framework for Transparency and Trust in Precision Livestock Farming**
  - ❖ Assist in designing explainable deep learning architectures to improve trust and decision-making in precision livestock farming.
  - ❖ Perform data preprocessing, feature engineering, and model evaluation for zoonotic disease detection in livestock using XAI frameworks.
  - ❖ Collaborate with researchers to develop visualization techniques and interpretability tools for deep learning models.

**M.O. Oyediran and O.S. Ojo Laboratory, Ajayi Crowther University, Oyo State, Nigeria**

*Laboratory Assistant*

*May 2024 – Dec., 2024*

- **Lung Cancer Classification**:
  - ❖ Developed and implemented a computer-aided vision system using convolutional neural networks for accurate lung cancer classification.
  - ❖ Employed visual data representation techniques to enhance the interpretability of diagnostic results, facilitating improved clinical decision-making.
- **Visualizing the Performance of Cloud-Based Machine Learning Models:**
  - ❖ Designed interactive dashboards and visual tools to monitor and evaluate cloud-deployed ML models (evaluating metrics such as: accuracy, precision, recall, and F1-score over time.)
  - ❖ Provided real-time insights into model accuracy, trends, and optimization.
  - ❖ Created interactive dashboards to track resource utilization (CPU, memory, GPU) and identify bottlenecks.
  - ❖ Developed anomaly detection techniques to visualize unexpected changes in model behavior.

**Dr. Fagbuagun's Lab., Department of Computer Science, Federal University Oye Ekiti**

*Undergraduate Research Student*

Undergraduate Thesis: Brain Stroke prediction in Artificial intelligence

Supervisor: Dr. O.A. Fagbuagun

*Jan., 2022 – Dec., 2022*

- Conducted research on machine learning algorithms and deep learning models with a specific focus on healthcare applications in predicting brain strokes.
- Designed and implemented a predictive model for brain stroke detection using patient data and text-based characteristics.
- Performed data cleaning, preprocessing, and analysis to ensure accurate model training and validation.
- Researched relevant academic and industrial literature to align the project with state-of-the-art practices in stroke prediction.
- Analyzed the impact of various machine learning algorithms on model performance to recommend the most effective approach.
- Prepared detailed technical reports and assisted in tutoring peers during lab sessions to foster collaborative learning.

**Dr. Fagbuagun's Lab., Department of Computer Science, Federal University Oye Ekiti**

*Undergraduate Research Student*

Seminar: Blockchain technology in Multiscale Loan Management System
Supervised by Dr. O.A. Fagbuagun
Co-Supervised by Bature Joshua (Ph.D. in view)
*Jun., 2021 – Dec., 2021*

- Investigated blockchain technology's role in enhancing transparency and efficiency in loan management systems.
- Analyzed the integration of machine learning models for credit scoring and loan approval processes.
- Explored the scalability of blockchain for multiscale operations through relevant literature and case studies.
- Supported tutorial sessions for peers by breaking down complex blockchain and machine learning concepts.
- Contributed to drafting seminar reports and presentations summarizing findings on the application of blockchain in finance.

**Dr. Ayogu's Lab., Department of Computer Science, Federal University Oye Ekiti**

*Undergraduate Research Student*

Software Laboratory: Artificial Immune System for Network Intrusion Detection System, case-study: B-cell and T-cell lympophyte
Supervised by Dr. Mrs. B.A. Ayogu
*Dec., 2020 – Apr., 2021*

- Conducted research on artificial immune systems (AIS) to develop a novel network intrusion detection model inspired by biological immune mechanisms.
- Designed a model incorporating B-cell and T-cell lymphocyte behaviors for identifying and mitigating cyber threats.
- Preprocessed and analyzed network traffic datasets to simulate real-world intrusion scenarios for model training.
- Reviewed literature on AIS applications in cybersecurity, emphasizing anomaly and misuse detection.
- Assisted colleagues during laboratory hours with AIS concepts and model implementation techniques.
- Authored comprehensive reports detailing the research methodology, findings, and recommendations.

## TEACHING EXPERIENCE

**Afijio, Atiba, Oyo East, Oyo West LGA of Oyo Township, Oyo State, Nigeria**

*Computer Based Test facilitator*                                          *Mar., August 2024*

- Centre I:  Ajayi Crowther University, Oyo, Oyo State
- Centre II: Atiba University, Oyo, Oyo State

I facilitated practicum session of not less than 250 Senior Secondary school students in Digital literacy and evaluation

**Mother'spride Education Consult, Oye Ekiti, Ekiti State, Nigeria**

*Course Tutor*                                                      *Mar., 2019 – Sep., 2019*

\* - I was the sole tutorial instructor

\*`` - I was Co-Instructor of the course

`` - I was assigned special topics in the course syllabus

Introduction to Computing programing-CSC 101\* (400+ Student), Structured Programming with python-CSC 201\* (350+ Student), Introduction to Digital Computer Systems-CSC 207\* (75+ Student), Mathematical Models I-MTH 201`` (350+ Student), Linear Algebra I-MTH 205`` (100+ Student), Introduction to Numerical Analysis-MTH 209\* (200+ Student), Electronic Circuit & Basic Electronics-PHY 207\*`` (200+ Student), Human Computer Interaction-CSC 202\* (75+ Student), Computer Programming with C++ -CSC 208\* (100+ Student), and Statistics for Physical Sciences and Engineering    -MTH 232``(400+ Student)

## OTHER EXPERIENCE

**Ugee Chemicals Ltd., Ikorodu, Lagos State**

*Finished Goods Warehouse and Supply Executive*                          *Jan., 2025 – Mar. 2025*

- collect finished goods from the production line and ensure proper storage in the warehouse to maintain optimal stock levels.
- Manage the sale and distribution of finished goods to partner companies, including ASPIRA Nigeria Ltd., ensuring timely delivery and strong business relationships.
- Using artificial intelligence tools to optimize and automate repetitive warehouse and supply chain tasks, improving efficiency and accuracy.
- Utilize Tally ERP 9 software for accurate stock tracking, invoicing, and financial reporting to maintain seamless operations.
- Generate insights from stock movement data to improve operational decision-making and forecast demand.
- Work closely with raw materials team, production, warehouse, and logistics teams to ensure alignment between manufacturing schedules and delivery commitments.

**Ajayi Crowther University, Oyo state**

*Assistant System Analyst / Network Support (NYSC)*                          *Mar., 2024 – Dec., 2024*

- **ICT System Support:** Provided technical assistance for ICT-related issues, troubleshooting and resolving system bugs to ensure seamless operations across the university.
- **Network Maintenance:** Set-up, managed and resolved network-related issues, ensuring reliable connectivity and uptime for staff and students.
- **Student Identity Database Management:** Oversaw the management of student identity databases, addressing queries related to the course registration and bio-data portals.
- **Process Automation:** Spearheaded the automation of staff and student ID card issuance, reducing processing time by 75%. Coordinated ID card-related processes, ensuring timely resolution of inquiries.
- **CBT Exam Support:** Delivered real-time troubleshooting for ICT-based Computer-Based Testing (CBT) during exams, guaranteeing a smooth and reliable testing environment.
- **End-User Training:** Conducted training sessions for staff and students, enhancing proficiency in the use of software applications and ICT tools.
- **Project and Technical Support:** Balanced multiple projects alongside providing on-demand technical support for staff and students, ensuring effective task prioritization and issue resolution.

### Ajayi Crowther University, Oyo state, Nigeria
*Administrative Officer (NYSC)*                                    *Nov., 2023 – Mar., 2024*
- I helped in maintaining and updating Staff and Student records by automating Staff onboarding, student file opening, and facilitation of Staff/Student clearance
- I managed financial reports and forecasting by collating Staff pay-slip and staff monthly departmental clearance.
- I also registered and enrolled staff by automating of staff file opening and updating of files records

### Gabol - Tech Engineering Project Limited, Ikeja, Lagos State, Nigeria
*Graduate Intern*                                    *Jan., 2023 - Sep., 2023*
- I developed and implemented data preprocessing pipelines that improved model performance by 20%.
- I participated in the design and implementation of computer vision systems for the recognition and classification of objects within the context of engineering projects, also assisted in the development and deployment of predictive models using Python, TensorFlow, and scikit-learn, to support decision-making processes for engineering applications.
- Actively engaged in code reviews, debugging, and testing of machine learning models to ensure reliability and accuracy in real-world scenarios.

### Aanu Global Cyber Cafe and Technologies, Oye Ekiti, Ekiti State, Nigeria
*Cyber Cafe Assistant*                                    *Mar., 2019 - Dec., 2022*
- I managed customer inquiries and provided technical support for various computer and internet-related issues.
- I assisted customers with printing, scanning, and other office-related tasks, ensuring efficient and accurate service delivery.
- I oversaw the operations of computer systems and network infrastructure within the cyber cafe, addressing any technical issues that arose.
- I educated customers on basic computer usage, internet navigation, and utilization of software applications, contributing to their digital literacy.

### PROFESSIONAL AFFILIATION
| | |
|---|---|
| Member, Google Developers Group, Ibadan | 2023 – Present |
| Member, Data Science Nigeria | 2019 – Present |
| Graduate Member, Computer Professional of Nigeria | 2019 – Present |

### SELECTED INDEPENDENT DEVELOPMENT (CERTIFICATES/TRAINING)
- AZURE 104: AZURE IT ADMINISTRATOR – Stanbic IBTC DiSEP Cohort 4.0
- PROMPT Engineering for ChatGPT – Vanderbilt University (Coursera)
- Professional Diploma in Artificial Intelligence and Machine Learning - 3MTT/NITDA
- Imaging analyzing and implementing of images - Udemy
- Python and Artificial Intelligence (AI) Coding Tools - Srinidhi, Udemy
- JavaScript And PHP And Python Programming Complete Course - Proper Dot Institute
- Complete Machine Learning with R Studio - ML for 2024 (Start Tech Academy)
- Digital Marketing (Advanced Marketing) – Udemy

### HACKATHON/CONTEST
- **Youth with A Vision in partnership with Access bank PLC**
  *Business plan entrance*                                    *NYSC Orientation Camp, Agwu, Enugu State*
  Nov., 2023
  I was 6th overall best among 30 participants

- **Financial Service Innovators in collaboration with National Association of Computing Student (NACOS)**
  *TechonDemand Hackathon*                                      *Nile University, Abuja*
  Oct. – Nov.,2021

## PUBLICATION

- **Ademola A.A (2023):** Brain stroke prediction using Artificial Intelligence and Machine Learning. A BSc. undergraduate research project, *submitted to the department of Computer science, Federal University Oye Ekiti, Ekiti State.*

## CONFERENCES/PRESENTATION

- Google Developer Student Club, Ajayi Crowther University Chapter, *Speaker (advancing AI in Healthcare*
  *May, 2024*
- 6th International Science Conference, Faculty of Science, Federal University Oye Ekiti, *Theme: "Harnessing Science and Technology for achieving sustainable development goals in the post COVID-19 Era"*
  *10th – 12th May, 2023*
- Brain Stroke prediction using Artificial Intelligence, *Final project (Speaker)*
  *Dec., 2022*
- AI in Healthcare: Diagnosis, Treatment, and Drug Discovery, *Seminar*
  *Mar., 2022*
- Serverless Computing: Building Scalable and Cost-Effective Applications, *Operations Research*
  *Sep., 2022*
- 5th International Science Conference, Faculty of Science, Federal University Oye Ekiti, *Theme: "Advances and Innovations in Science and Technology in the COVID-19 Era"*
  *10th – 12th Jan., 2022*
- Standup peach (In-person) - *TechonDemand Hackathon Finals*
  *Oct., 2021*
- Data Science for Science students – *NASS WEEK*
  *Aug., 2019*

## HONOURS, AWARD and GRANT

- **Stanbic IBTC Digital Skills Empowerment Programme** *(DiSEP)* — Competitive Selection
  Selected as one (1) of 204 participants from a competitive pool of 7000+ applicants for a fully-funded three-month Kubernetes training and professional certification program by Stanbic IBTC.
- Most Influential Student, National Association of Science Student, FUOYE, 2022
- Brain of the Year, National Association of Computing Student, FUOYE Chapter, 2019
- **Ericmoore Ngharamike Award for Distinguished Student**          Jun., 2019
  Award for overall best in CSC 207 (Introduction to Digital Computer System), a department record 59/60 in Exam.
- **Youth with A Vision in partnership with Access bank PLC**   Nov., 2023
  The grant was a one-time payment of 100,000 naira to support NYSC members in entrepreneurial pursuit
- **Osun State Government Undergraduate Scholarship**          Sep., 2022
  *(The award was a one-time payment of 80,000 naira to support undergraduate thesis)*

## COMMUNITY DEVELOPMENT SERVICE and VOLUNTEERING

- Give Back Initiative – *A 5 Days Intensive training program for Agriculture, Entrepreneurship and Technology (Health Care outreach, Senior secondary school students mobilization, Nigeria prison service visitation and Rejuvenation of selected markets in Oyo Town)*
- Volunteer Teacher and Instructor *(Alaafin High School, Agunpopo area, Oyo, Oyo State)*
- NYSC Environmental Sanitation Day (June 1st, 2024)

## LEADERSHIP EXPERIENCE

**President,** Give Back Initiative (A Special CDS) Atiba LGA, Oyo State                     *2024*

**Corpers Liason Officer,** Ajayi Crowther University Corp Members                          *2024*

**Screening and Verification Chairman,** Independent Federal University Oye Ekiti Student Union Government Electoral Commission          *2020/2021*

**Student Representing Computer Science (Senator), Federal University Oye Ekiti Student Union Senate Council**          *2020/2021*

**Chairman, Integrity and Advocate Youth Leadership Forum, Ekiti Chapter**
          *2021 - 2023*

**Student Representing Computer Science (Honourable),** Student Representative Council, National Association of Science Student (NASS), FUOYE Chapter          *2019/2020*

**Secretary General (Pioneer),** Nigeria University Engineering Student Association, OUI Chapter
          *2016/2017*

## SKILLS/INTEREST

**TECHNICAL SKILLS**

- Programming Languages: Python, R, MATLAB, Java, C#, C++.
- Database Management: SQL, PostgreSQL and Docker
- Data Analysis, AI/ML libraries: Tensorflow, Panda, PyTorch, sckit-learn, Pandas, Numpy
- Cybersecurity: Cryptography, Network Security, Scripting, Cloud computing
- MLOps: Familiarity with model deployment, monitoring and versioning
- Supply Chain: Proficient in using Tally ERP 9 software for inventory control, logistics planning, invoicing, and financial analysis, Logistics Coordination, Inventory Management, Vendor Relationship Management, and Process Optimization.

**SOFT SKILLS**

- Strong analytical abilities and problem-solving skills
- Effective cross-cultural communication skills
- Ability to negotiate effectively
- Strong presentation and public speaking skills
- Knowledge of data privacy regulations and ethical considerations

**RESEARCH SKILLS**

- Problem-Solving, experience in troubleshooting technical issues and developing solutions
- Research Collaboration and Technical Communications, ability to work effectively in a research environment and communicate findings
- Project Management, ability to plan, execute and manage research projects effectively
- Self-learning and Adaptability, eagerness to learn skills and adapt to evolving research trends and technologies