

OLUWATOYIN EZEKIEL FANIYAN

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EDUCATION

B.Sc. Computer Science,

January 2023

Federal University Oye-Ekiti, Ekiti, Nigeria

- **Grade:** First Class Honors (GPA: 4.66/5.0)
- **Related Courses:** Computer Programming, Artificial Intelligence, Data Structures, Algorithms, Software Engineering, Data Science, and Operations Research.
- **Thesis:** Experimental Comparison of State-of-the-Art Deep Learning Approaches for Oral Squamous Cell Carcinoma Cancer Segmentation
Supervisor: Dr. Temitayo Fagbola

RESEARCH EXPERIENCE

Undergraduate Researcher

October 2021 - November 2023

Federal University Oye-Ekiti, Ekiti, Nigeria

Project Title: Experimental Comparison of State-of-the-Art Deep Learning Approaches for Oral Squamous Cell Carcinoma Cancer Segmentation

Advisor: Dr. Temitayo Fagbola

- Leveraged and customized U-Net architectures, using specialized modifications, to achieve accurate segmentation of Oral Squamous Cell Carcinoma (OSCC) in Whole Slide Imaging (WSI) data
- Utilized and compared various image augmentation and preprocessing techniques, including color modification techniques (CMT) and positional modification techniques (PMT), leading to successful enhancement of model performance
- Demonstrated the applicability of developed models to diverse medical image analysis and computer vision tasks
- Presented findings at the FUOYE 5th International Science Conference, receiving positive feedback for innovation and methodology

Undergraduate Research Assistant

March 2022 - November 2023

Federal University Oye-Ekiti, Ekiti, Nigeria

Project Title: Development of Serial Number Extractor for Nigerian Currencies.

Advisor: Dr. Lawrence Adewole

- Successfully developed a system for accurate extraction of currency serial numbers to combat counterfeiting in Nigeria
- Achieved 100% accuracy in currency classification using an optimized object identification model
- Evaluated three OCR models (Pytesseract, EasyOCR, Keras OCR) for character recognition, with EasyOCR yielding the best accuracy of 81%
- Contributed to a manuscript submitted for publication in the University of Ibadan Journal of Science and Logics in ICT Research

Undergraduate Research Assistant

June 2022 - September 2022

FUOYE Natural Language Processing (NLP) LAB, Ekiti, Nigeria

Project Title: OCR and Deep Learning for Converting Yoruba Textbooks to Digital Text

Advisor: Dr. Lawrence Adewole

- Leveraged the ResNet architecture for feature extraction and LSTM for sequence modeling to create a robust optical character recognition system specifically for Yoruba textbooks
- Tailored the model to effectively recognize and digitize Yoruba text, addressing unique character sets and linguistic challenges through customized preprocessing and data augmentation techniques

- Collaborated with faculty to validate results through extensive experimentation, ensuring the system's reliability and scalability
- Developed proficiency in deep learning frameworks, model training, and AI applications in educational technology, contributing to advancements in OCR for underrepresented languages

PUBLICATIONS AND PRESENTATIONS

- Adewole, L. B., Ogunleye, E. O., **Faniyan, O. E.**, Adewale, S. A., & Daramola, C. Y. (2023). Development of Serial Number Extractor for Nigerian Currencies. University of Ibadan Journal of Science and Logics in ICT Research, 9(1). <https://journals.ui.edu.ng/index.php/uijslictr/article/view/1142>
- FUOYE 5th International Science Conference, 2022: **Participant and Oral Presenter** of a Research Titled 'Color Modifications and Its Effect on Deep Learning Architectures for Oral Squamous Cell Carcinoma Segmentation'

PROFESSIONAL EXPERIENCE

FullStack Engineer

June 2024 - Present

Stellar AI Labs, African AI Foundation

- Innovated a unified code repository strategy, reducing development overhead by 30% through scalable solutions
- Led the implementation of RESTful APIs using FastAPI, reducing backend response times by 20%
- Collaborated cross-functionally to deliver AI solutions using AI agents, boosting client satisfaction and improving project efficiency
- Managed deployments on Microsoft Azure and on-premise Linux servers, utilizing Azure AI services for seamless operations

Software Engineer, Co-Founder

April 2020 - Present

JambPrepAcademy

- Played a pivotal role in the creation and continuous development of the JambPrep mobile app (with over 100k downloads on the Google Play Store) and web app [\[jambprepacademy.com\]](https://jambprepacademy.com) within a small team
- Spearheaded AI workflow implementation leveraging LLMs, driving a 35% increase in the user base
- Led the implementation of geolocation APIs for suggesting the nearest UTME exam center, enhancing the user experience
- Successfully incorporated payment gateways such as Paystack and Stripe, leveraging their APIs for secure and seamless transactions within the application

IT Support Specialist

June 2023 - April 2024

Post Primary Schools Management Board, Enugu (PPSMB)

- Provided expert technical support, swiftly troubleshooting and resolving software issues while tailoring solutions for specific departmental needs
- Led the initiative to revamp the workplace network architecture, leveraging my knowledge of networks to achieve significant performance improvements
- Held workshops and taught colleagues and employees from various departments in the business how to execute fundamental networking chores
- Expertly managed and troubleshooted networks within the board, ensuring seamless connectivity and resolving issues promptly

Video Production Editor

August 2021 - October 2021

Osun State Broadcasting Corporation, Osun, Nigeria

- Utilized advanced video editing software to enhance visual appeal and storytelling
- Edited and assembled raw footage into engaging broadcast content, leveraging AI tools for automated scene detection
- Collaborated with production teams to enhance video workflows and visual storytelling

RELEVANT SKILLS AND COMPETENCIES

- **Technical Skills:** Python, Tensorflow, PyTorch, TypeScript, LangChain, PostgreSQL, NodeJS
- **Others:** Public Speaking, Team Leadership, Writing, Problem Solving, Education Operations, Communication

SCHOLARSHIPS AND AWARDS

- **Ekiti State Undergraduate Scholarship** Award for Outstanding Students **August 2019 - December 2022**
- **Dean's List** for Academic Excellence with Perfect Grades **July 2019 - July 2020**
- **Outstanding Service** Award by Nigeria Association of Computing Students, FUOYE Chapter **July 2021**
- **Outstanding Leadership** Awarded by the National Youth Service Corps (NYSC), Enugu State **April 2024**

LEADERSHIP EXPERIENCE

- **Public Relations Officer (P.R.O.)** at the Federal Road Safety Commission, Community Development Service, Enugu North for NYSC members **September 2023 - April 2024**
- **General Secretary**, Electoral Committee, Computer Science Department, Federal University Oye-Ekiti **December 2021 - December 2022**
- **Founder and Organiser** for Exam Tutorials, especially for Computer Science undergraduates, FUOYE **January 2018 - December 2023**
- **Provost** for the Federal Road Safety Commission Sector Command, National Youth Service Corps, Enugu State **October 2023 - April 2024**

VOLUNTEER EXPERIENCE

- **Member**, Community Development Service Projects, Federal Road Safety Commission, Enugu North for NYSC Corps members **May 2023 - April 2024**
- **Campus-DSN Tutor**: Facilitated teaching and hackathon sessions for members of Data Science Nigeria (DSN) FUOYE **August 2021 - December 2022**
- **Academic Tutor**: Tutorials for coursemates and lower-level undergraduates on Computer Science Courses, including tutorials on programming languages **January 2018 - December 2023**
- **Member**: Enugu Schools Sensitizations by Independent NYSC Members. **January 2024 - April 2024**

PROFESSIONAL CERTIFICATIONS AND AFFILIATIONS

Certifications

- **DeepLearning.AI**
 - [Neural Networks and Deep Learning](#) **2024**
- **Zindi Africa**
 - FREE AI Class in Every City [AI Invasion] **2022**
 - UmojaHack Africa 2022: Monthly Insurance Claim Prediction Challenge **2022**
- **Data Science Nigeria**
 - DSN AI Bootcamp Qualification Hackathon **2021**
 - Data Science Nigeria Bank Campaign Subscriptions **2021**
- **CISCO**
 - [CCNA: Introduction to Networks](#) **2022**
 - [CCNA: Switching, Routing, and Wireless Essentials](#) **2022**
 - [CCNA: Enterprise Networking, Security, and Automation](#) **2023**
- **ALX**
 - [AI Augmented Professional Development Skills in the Digital Age](#) **2024**

Professional Affiliations

- Data Science Nigeria (DSN)
- Black in AI
- International Association of Engineers (IAENG)

LANGUAGES

- **English**: Native language, Distinguished levels in Listening, Speaking, Reading and Writing.
- **Yoruba**: Native Language, Distinguished levels in Listening, Speaking, Reading and Writing.

REFERENCES

Dr. Temitayo Matthew Fagbola

Data Science AI and Modeling Centre (DAIM)
University of Hull,
Cottingham Road, Hull, East Yorkshire, HU6 7RX, UK
temitayo-matthew.fagbola@hull.ac.uk
Relationship: BSc Supervisor

Dr. Lawrence Bunmi Adewole

Department of Computer Science
Federal University Oye Ekiti,
P.M.B. 373, Oye Ekiti, Ekiti State, Nigeria
lawrence.adewole@fuoye.edu.ng
Relationship: Academic Advisor

Dr. John Kuboye

Department of Mathematics
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Relationship: Academic Advisor