OLUFEMI VICTOR TOLULOPE

Email: olufemivictort@gmail.com
Phone: +234(0)8111109159
LinkedIn GitHub Zindi Medium Website

EDUCATION

B.SC (Hons): Electronic and Electrical Engineering [August 2023]
Department of Electronic and Electrical Engineering, Obafemi Awolowo University, Nigeria
CGPA: 4.11/5.0

Test Scores: IELTS (7.5), GRE (307)

RELEVANT PUBLICATIONS

- Babatunde, O. B., Akeweje, E. O., Ibejih, S., **Olufemi, V. T**., & Folorunso, S. O. (2023). *Automatic Speech Recognition for Nigerian-Accented English* **Deep Learning Indaba (Published)**

- Oreoluwa Boluwatife Babatunde[1], **Victor Tolulope Olufemi[2]**, Toluwani Aremu[3] (2023). *Enhancing ASR with Zero-Shot Learning for Nigerian Accents*. **Neurips 2023 – Accepted in Black in AI Workshop (BAI)**

RECENT PRIZES AND AWARDS

- 1st Place on Leaderboard GeoAI Challenge **Location Mention Recognition from social** media by the International Telecommunication Union (ITU). October 2023. link

- 1st Place Winner **AI4D Africa's Anglophone Multidisciplinary Research Lab ASR Challenge**. August 2023. link

- **Featured by Google**; People's Choice Award and **Top 10 Worldwide** Google Solution Challenge. August 2023. link

- **Mr. Algorithm Award** by DSN (Data Scientists Network) August 2023.

- 2nd Runner up, **Multilingual Embeddings AI Hackathon by** Cohere & AI-Saturdays. May 2023. link

- 1st Runner up, **Umoja Hack 2023** Intermediate Category. April 2023.

- 1st Place Winner, **Bitgrit NFT Price Prediction Challenge**. March 2023. link

- 1st Place Winner, at **Kaggle Kitchenware Classification Hackathon**. February 2023. link

- 1st Place Winner, **Kenyan Sign Language Classification** by JENGA and Jomo Kenyatta University of Agriculture and Technology Kenya. January 2023. link

RESEARCH GRANT

Final Year Project (2023)

Futurum Awards Research Fund for the project titled: "Development of A Transfer Calibration and Decentralized Storage for An IOT Compliant Carbon Emissions Monitoring System." [worth 150,000 NGN]

Role: Sole lead and principal investigator; from research to design and successful implementation of all software and hardware components of the project implementing a synergy of IPFS, Blockchain and Machine Learning.

PORTFOLIO PROJECTS

Machine Learning and AI.
- **FarmX**: Leveraged AI to create a crop recommendation system capable of detecting crop disease, providing information about detected crop diseases and curing methods via a **Retrieval-Augmented Generation (RAG)** approach in 150 languages.

- **Agrobot-APIs.** An Open-source API offering endpoints for Agtech projects, including crop recommendation, analysis, disease detection, IoT data and other diagnostics.

- Deployed **Chemotron-x**: A Machine learning model that predicts the concentration of carbon in the atmosphere, it is a subsidiary of the Chemotronix project. My contributions to this project helped reduce the cost of IoT by 90%, enabling the development of a low-cost Carbon emissions monitoring system.

EMPLOYMENT EXPERIENCE

Assistant Tutor at Robotics and Artificial Intelligence Nigeria: March 2024 – Present.
- Teaching AI/ML courses, including theoretical NLP; **Language Modelling, Attention Mechanism & Transformers.**
- Assisting AI & Robotics students with code debugging and design thinking for their final project.
- Other administrative and social responsibilities as directed by the Director of Academics

AI Intern at Five-Whys Singapore: Dec 2023 – Present.
- Building **custom LLM pipelines** from data curation to fine-tuning, inference and evaluation.
- Prompt engineering and developing model guardrails.
- Implementing **multi-model (LLMs)** support for the primary product called Glucose

Data Scientist at Farmz2u: Jan - Oct 2022
- Improved user analytics and data tracking by 75% by implementing tools like Mixpanel, Google Analytics, and Grafana.
- Tracked the company mentions, searches, keywords, and sentiment on social media and search engines.

Machine Learning Intern at AirQo Uganda: Apr-Jun 2022
- Enhanced the fault detection machine learning model, achieving a 93.29% accuracy rate.
- Deployed the fault detection model used at AirQo.

Membership in Professional Bodies

Professional Society Membership
- Member, Masakhane NLP
- Member, Deep Learning Indaba
- Member, Black in AI
- Member, Data Scientists Network (**DSN**)
- Ambassador & Mentor, Zindi Africa
- Contributor, Omdena AI
- Member, Institute of Electrical and Electronics Engineer (**IEEE**) Student Society
- Member, Applied Machine Learning Days (**AMLD**)
- Graduate Member, Nigerian Society of Engineering (**NSE**)

SKILLS

Face-to-face Communication and Writing skills
- I have written, co-authored, and internally reviewed technical reports and peer-reviewed conference papers and journal articles.
- I have excellent face-to-face communication skills. I interact freely with colleagues at work. I communicate my ideas perfectly to specialist and non-specialist audiences. I engage in meaningful discussions during networking sessions at conferences/seminars/workshops, and research group meetings.

Presentation and Organisational Skills
- I have given various talks and made poster presentations and practical demonstrations at various technical and non-technical sessions of seminars, conferences, outreach programmes and workshops both nationally and internationally.
- As a technical lead of several projects, I have crafted grant-winning proposals and constantly presented technical concepts clearly to a technical and non-technical audience.
- In 2023, I was invited to speak at a TEDx event, the Youth Stem Matters Research Conference, and the Google IO Extended among several others

Programming and Hardware skills
- I am proficient in advanced AI/ML algorithm development and implementation, with a strong command of frameworks such as TensorFlow and PyTorch for deep learning model design.
- I conveniently leverage Scikit-learn for machine learning, PowerBI, Matplotlib and Seaborn for data visualization, Jupyter Notebooks for interactive development, and Git for version control.
- I am experienced in leveraging cloud platforms like AWS and Google Cloud for scalable machine learning deployments. Skilled in **Python** programming, **C++**, and **SQL**
- I have excellent electronics analysis & design skills. I'm versatile in the use of electronic software development tools such as Proteus for electronic design automation, Arduino IDE for programming Arduino boards, Programming microcontrollers, and Latex for preparing reports and presentations.

Written and Spoken English
- I am proficient in spoken and written English. English language was the medium of instruction and assessment/examination throughout my primary, secondary and tertiary education in Nigeria. I also passed the International English Language Testing System (**IELTS**) Exam with a band 7.5/9.0.