ADEBOYE A. Daniel

https://daunsid.github.io/daunsi
https://www.linkedin.com/in/daniel-adeboye/

EDUCATION

Bachelor of Engineering in Electrical Engineering, *First Class Honors* 12/2016 - 03/2022
University of Abuja, Abuja, Nigeria.
Thesis: *Human activity recognition in wearables using random forest feature selection to reduce computational cost. preprint*

RESEARCH PROJECT

Segmentation of GI-Tract in MRIs for Tumor Detection 12/2022
GitHub | Presentation.

- **Segmentation Technique**: I employed state-of-the-art U-Net architecture to segment the gastrointestinal (GI) tract in MRIs, showcasing a sophisticated and cutting-edge approach to image analysis.
- **Robustness and Generalization**: I established the robustness and generalization capabilities of the U-Net architecture for tumor detection.

RESEARCH INTERESTS

Medical Image Processing, Cognitive Science, Self-supervised Learning, Computer Vision.

PROFESSIONAL AND RESEARCH EXPERIENCE

Machine Learning Engineer Oaks Intelligence 05/2024 - Present
Remote - Nigeria.

- I contributed to building the AI-backend service at Oaks Intelligence from scratch, implementing a scalable code architecture, deployment pipelines, and data repositories.
- I provide several APIs used on the different platforms kommunita, carbon-adjust, and poll-sensei.
- I implemented messaging systems to ensure our services are highly available.

Artificial Intelligence Engineer Polar Frequency 01/2024 - 05/2024
Remote - Dubai, UAE.

- I built the AI backend of Goghr, a platform that uses AI to manage recruitment processes.
- I implemented the chat service of Goghr which allows users to communicate with Goghr using text.
- I implemented a scalable real-time audio service that facilitates audio communication with Goghr

Artificial Intelligence Engineer CloudClinic 06/2023 - 02/2024
Onsite - Nigeria.

- I implemented the algorithm for matching services provided by healthcare partners with the extensive Cloud Clinic database, resulting in quick service delivery on the platform.
- I collaborate with a large team of engineer across the three different subsidiaries of Light on Heights by providing AI solutions to improve their workflows
- I built the backend of cloud clinic AI clinical assistants, significantly improving patient engagement on the platform.
- I built a scalable data model for interacting with a large database of patient health records

Machine Learning - Research Engineer TAO AI 06/2023 - 10/2023
Remote - Nigeria.

- I led a cross-functional team in developing an Agricultural multi-modal chat model using deep learning for Nigeria's agricultural sector.
- I researched state-of-the-art, language models including auto-regressive models, for finetuning large datasets of agricultural publications.
- I produced comprehensive technical documentation and reports outlining research methodologies, findings, and recommendations.
- I automated the data processing pipelines of more than 80G of data storage.

Machine Learning Research Engineer Stealth Startup 03/2022 - 09/2022
Remote - Bradford, United Kingdom.

- I contributed to a research-driven project culminating in a published paper on developing a music recommendation system that leverages deep learning for precise emotion recognition through facial expressions.
- I conducted an in-depth investigation into state-of-the-art computer vision algorithms, leading to significant improvement in emotion detection. This work laid the groundwork for a robust emotion detection model with potential applications beyond music recommendations.
- I engineered a scalable API, integrating the developed emotion detection model with Spotify's extensive music catalog.

PUBLICATIONS AND PREPRINTS

1. Akputu, O. K., Dumzo-Ajufo, D., Okafor, C. C., **Abayomi, A. D**., & Ape, T. M. (2024). Towards Development of a Multilingual Mobile Chat Application for Enhanced Global Communication. Teknika, 13(1), 86-91. https://doi.org/10.34148/teknika.v13i1.717
2. Adamu S., Olurin O., **Adeboye D.,** Aliyu G., Nataala A., Egere A., Baba H., Yusuf B., (2023). Music recommendation using emotion detection from facial expressions in portable devices. (Accepted for publication at SN Computer Science).
3. **Adeboye, D**. (2022) Human activity recognition in wearables using random forest feature selection to reduce computational cost. preprint

CONFERENCE PRESENTATION

1. Adamu S., Olurin O., **Adeboye D.,** Aliyu G., Nataala A., Egere A., Baba H., Yusuf B., (2023). Music recommendation using emotion detection from facial expressions in portable devices. Proc. of the **International Conference on Computing and Advances in Information Technology (ICCAIT 2023)** 21-23 November 2023, Ahmadu Bello University, Zaria, Nigeria. Certificate

TEACHING EXPERIENCE

Mentor African Institute of Technology and Innovation 01/2024 - Present

- **Code Reviews:** I conduct weekly code reviews for mentees assigned to me
- **Specialized Tutoring**: I facilitate bi-weekly one-on-one sessions with mentees
- **Mentorship**: I assist mentees in debugging their code

Academic Tutor (Conference of Nigeria Christian Engineering student). 12/2019 - 12/2021
Faculty of Engineering, University of Abuja.

- **Academic Support**: Provided academic support to first-year engineering students through tutorials, strengthening their foundation in mathematics.
- **Mentorship**: Contributed to the academic community through mentorship, enhancing students' educational journey and learning experience.

HONORS AND RECOGNITION

Dean's List from 2017 – 2021 | Faculty of Engineering.	2017 - 2021
University's Scholars Recognition Award, 25th Convocation | University of Abuja.	03/2022
Best Graduating Student | Department of Electrical Engineering	03/2022
Undergraduate Research Scholar | Center for Undergraduate Research	06/2021

TECHNICAL SKILLS

Programming Languages: Python, Go, MATLAB, C/C++, Linux.
Frameworks/Libraries: FastAPI, PyTorch, TensorFlow, Scikit-learn, Gorm.
Technical Skill: Deep Learning, Automation, Scripting, Deployment, RESTful APIs, ML Research, MLOPs.