Temitope Ologunbaba O.

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EDUCATION

Federal University of Technology, Akure, Nigeria.   **2015 – 2021**
Bachelor of Engineering; Electrical/Electronics Engineering   **Second Class Upper (3.49/4.00)**

SKILLS AND CERTIFICATIONS

Certifications: Intermediate Machine Learning, IBM - Introduction to Artificial Intelligence, DataCamp - Intermediate Python, Coursera - Deep Learning, Lagos Africa AI Bootcamp, Fundamentals of Grant Writing.

Programming Languages: Python(PyTorch, Numpy, Flask, Kerras), Dart(Flutter), PLC Programming, Java(Spring, Mobile), JavaScript (NodeJS), Go, Firebase and Git, Docker, GCP, MongoDB, MySQL.

Softwares: MATLAB, PSpice, AutoCAD Pro, TensorFlow, and OpenCV, Microsoft Office.

Relevant Courses/Skills: Electrical Panel Design, Deductive Mathematics and Algebra, Inverter System Design & Integration, Technical Proficiency in Inverter and Battery Systems, Software Development, Engineering Analysis and Modeling using MATLAB, Machine Learning using Scikit-Learn.

RESEARCH EXPERIENCE

Thesis: Effect of Weather Conditions on Free Space Optics, Review Paper (Ongoing)   **2020 - 2021**
- Built a sound transmitter and receiver using microcontroller and electronics components that transmit sound signals with only 5% attenuation within a free space.
- Simulated rain conditions to analyze the impact on Free Space Optics (FSO) transmission, measuring signal degradation using an oscilloscope.
- Reviewed and documented weather effects on FSO performance, providing insights into atmospheric interference in the City.

Communications Laboratory - Student Researcher, FUTA   **2018 - 2021**
- Conducted experiments and simulations on Optical systems, improving transmission efficiency.
- Analyzed network protocols and signal processing techniques, leading to a deeper understanding of communication theory.
- Collaborated with research teams, contributing to the development of new models and technologies.

PROFESSIONAL EXPERIENCE

Greenpeg Engineering - System Engineer   **November 2022 – Present**
- Designed and deployed learning algorithms for real-time data analysis on embedded IoT devices, reducing data transmission costs by 20%.
- Managed end-to-end commissioning of control systems, achieving a 100% success rate in project execution, and minimized downtime during installation phases by utilizing predictive diagnostics and robust testing protocols.
- Worked on installation, and maintenance of automation systems tailored to meet the specific needs of industrial clients.
- Implemented embedded systems for automation, enhancing response time by 25% with optimized sensor integration.

Research/Development Engineer (Remote), Blumefy   **September 2021 – October 2022**
- Conducted app research to gather insights into user behaviors, needs, and pain points, then analyze to work with the results.
- Designed, prototyped, developed and tested new features, increasing feature engagement by 15% and driving innovation for future app releases.
- Optimized app performance and resolved technical issues from customer support, while reducing app crashes by 30% and significantly improving app stability and user satisfaction.

Research/Development Engineer, Komodo (Part-time). September 2019 – Present
- Specialized in designing, developing desktop and mobile applications using Java, Flutter and Dart, and developed over 30 applications both on play store and app store for the clients.
- Deployed the backend application to GCP server. I also managed the server, fixed server bugs, automated our processes and increased stability to up to 99% uptime.

Class Teacher, Mariam Joseph Anglican Grammar School (Service Corp) March 2022 – Feb. 2023
- Designed engaging science lessons in advanced mathematics and physics, increasing student comprehension by 30% through hands-on experiments and interactive learning activities.
- Led classroom discussions and projects, fostering critical thinking and problem-solving skills, and boosting student participation by 40%.
- Conducted physics lab sessions and hands-on activities, enhancing student understanding through practical experiments, and increasing performance through tailored assessments and guided support.

System Engineer Intern, National Meteorological Agency June 2019 – December 2019
- Maintained and Developed Desktop and System Solutions for the agency as a junior Intern.
- Weekly technical maintenance of airport runway electrical instruments on the field.
- Collection of weather data and working with meteorologists in analyzing data, and interpreting them.

ACADEMIC AND PROFESSIONAL ACHIEVEMENTS
- Selected Participant, **Lagos Machine Learning Bootcamp.** **2024**
- Recipient, **Annual Agbami Scholarship Award**. **2017 - 2021**
- 3rd Best Graduating student in the Department of EEE, FUTA. **2021**
- Recipient, **Engineers-In-Society Symposium Certificate.** **2017**
- 4x Dean's/Scholars' List, **FUTA**. **2016 - 2018, 2021**
- Top 3 Best graduating students in the Department of Electrical Engineering, FUTA. **2022**
- Top 5, **Read to Lead Africa Scholarship Initiative.** **2018**
- Recipient, **National Merit Scholarship** – Awarded for exceptional academic performance in undergraduate studies. **2018**
- Winner, **S.U. Writing, FUTA** – Recognized for outstanding writing on social issues. **2015**
- Recipient**, Impact Leaders Club Mentor Award** – Recognized for exceptional mentorship and leadership in guiding students. **2019**
- Honored Member, **Future Engineers of Africa.** **2023**

CONFERENCES ATTENDED
- **Africa Renewable Energy Forum (AREF)** **2023**
- Need-driven engineering research for entrepreneurial development in developing countries. **2019, 2021**
- **Society of Engineers**, Virtual International conference. **2024**

PROFESSIONAL AFFILIATIONS
- Member, **IEEE(Institute of Electrical and Electronics Engineers, Nigeria Chapter)** 2019 - Present
- Member, **Future Engineers of Africa.** **2023**
- Member, **Nigerian Universities Engineering Students Association, FUTA.** **2015 – 2021**
- Graduate Member, **Nigerian Society of Engineers.** **2021 – Present**
- Member, **Impact Your World Leadership Initiative.** **2018 – Present**
- Member, **Impact Leaders Club, FUTA.** **2015 – 2021**

LEADERSHIP AND VOLUNTEERING EXPERIENCE

- **General Secretary,** NIEEES, FUTA.   **2019 – 2021**
- **Speaker**, Lagos Machine Learning Bootcamp.   **2024**
- **Class Teacher**, Mariam Joseph Grammar School, National Youth Service Corp (NYSC).   **2022**
- **Student Mentor,** Impact Leaders Club.   **2022**
- **Undergraduate Tutor/Sound, Light and Power Technician,** CACCF, FUTA.   **2015 - 2019**
- **Course Representative**, Department of Electrical/Electronics Engineering.   **2016 - 2018**
- **Community Outreach**, Reading Awareness Society for Development in Africa(RASDA)   **2014**
- **Participant**, Reading Awareness Society for Development in Africa(RASDA) Volunteering   **2014**

PROJECTS

- **Heart Disease Predictor**   [REPO LINK](#)
  This project explores how to build a model capable of predicting(up to 95%) heart disease whether or not an individual has heart disease based on their medical attributes. **Technologies: Python, Pandas, Numpy, Scikit-learn, Matplotlib, Seaborn.**

- **CNN implementation for MNIST Digit Classification**   [REPO LINK](#)
  This project implements a Convolutional Neural Network (CNN) to classify handwritten digits from the MNIST dataset. The model is designed to achieve an accuracy of 99.5% or more by adding a single convolutional layer and a single MaxPooling 2D layer to the architecture. The goal is to demonstrate the effectiveness of CNN image classification tasks. **Technologies: Python, Tensorflow.**

- **3rd Party Privacy Detector**   [REPO LINK](#)
  This is a real time camera detection system I built to detect if a device is about to be snapped from an external camera and was built with tensorflow. I built the model with Tensorflow and it was deployed on a live mobile app. **Technologies: Java, Flutter, Dart, Python, Tensorflow, Keras.**

- **Movie Recommendation System**   [REPO LINK](#)
  This project demonstrates how to build a content-based movie recommender system, allowing you to manage dependencies and deploy it in various environments. The recommender system is built using Python and utilizes TF-IDF and cosine similarity to recommend movies based on genre similarities. **Technologies: Java, Flutter, Dart, Python, Docker, Scikit-learn, Tensorflow, Cosine Algo.**

ARTICLES AND PUBLICATIONS

- **Effect of Weather Conditions on Free Space Optics,** Review Paper (Ongoing)
- **Building a Movie Recommendation System Using Content-Based and Collaborative Filtering.**
- **Harnessing AI in Mobile Apps: Implementation with Flutter.**
- **The Mathematics of Neural Networks.**
- **Building an Image Recognition System with Python, TensorFlow, and Keras.**
- **Mastering Conversational AI: A Deep Dive into Natural Language Understanding for Chatbots.**
- **Comprehensive Guide to Using Docker with Python: Focus on Machine Learning Applications.**
- **Unleashing the Power of Neural Networks in Artificial Intelligence.**