

MUSTAPHA ABDULLAHI

Kaduna, Nigeria

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RESEARCH INTERESTS

Machine Learning, Reinforcement Learning, and Robotics

EDUCATION

Queen Mary University of London <i>MSc Artificial Intelligence [Computer Vision and Robotics]</i>	Oct. 2022 - Sept. 2023 (Expected) <i>London, U.K.</i>
Ahmadu Bello University <i>Bachelor of Engineering in Computer Engineering - CGPA : 4.90/5.00</i>	Oct. 2015 - Nov. 2021 <i>Zaria, Nigeria</i>
Federal Government College, Kaduna <i>West African Secondary School Certificate (W.A.S.S.C.E)</i>	Sept. 2012 - July 2015 <i>Kaduna, Nigeria</i>

WORK EXPERIENCE

Play4Work <i>Chatbot Developer</i>	Feb. 2021 - Mar. 2022 <i>Canada(Remote)</i>
<ul style="list-style-type: none">• Collaborated with a team of 5 to design conversation mappings required to build an interactive chatbot.• Spearheaded a team of 2 to develop a chatbot with over 700 conversation nodes.• Reduced 60% of the company's workload of candidate's matching and responses processing.	
Huawei <i>Big Data/Cloud Intern</i>	Jan. 2020 - Feb. 2020 <i>Lagos, Nigeria</i>
<ul style="list-style-type: none">• Setup and management of FTP Server, Wordpress (Windows & Linux), Windows Share Point Server, etc. on Huawei ECS.• Performed Relational Database migration using Cloud Data Migration Tool. Utilized Sqoop to migrate data between Apache HDFS, Apache HBase, Apache Hive and MySQL database.• Performed Data Analysis of Smart IoT solution with over 400,000 data points utilizing HiveQL for offline analysis, Apache Hbase for real-time query and retrieval and Spark-SQL to migrate the offline analysis service.	

PROJECTS

Evolving AlexNet CNN Maize Plant Disease Classification (Paper) [Ongoing]	July 2021 to Present
<ul style="list-style-type: none">• We propose a modified Binary Particle Swarm optimization (BPSO) algorithm to optimize the structure of the fully connected (FC) layers of CNNs.• Developed a Tensorflow code implementation of AlexNet model• Collaborated to derive an optimized model architecture achieving an improved accuracy of 98.3%.	
iGlass	Apr. 2020 - October. 2021
<ul style="list-style-type: none">• A smart assistive device for the visually impaired for reading out text, object detection, scene description, etc. using Raspberry Pi, AWS Rekognition, and Google cloud AI.• Spearheaded the development of iGlass prototype.	
CompengBot	Mar. 2021 to Apr. 2021
<ul style="list-style-type: none">• a fast and efficient chatbot to answer queries of students and general public related to the computer engineering department. Deployment on the departmental website and Telegram.• Easy and improved access to information about department and school.• Quick access to details about courses and lecturers contact.	
Transfer Learning for Classification of Cat, Dog and Pandas	Dec. 2020
<ul style="list-style-type: none">• Used densenet-161 as feature extractor and achieved an accuracy of 97.3%.	

SELECTED AWARDS

- Best Graduating Engineering Student Award, NSE (Nigerian Society of Engineers) - Dec. 2022
- 2023 Rhodes Scholarship Finalist [West Africa] - Dec. 2022
- DeepMind Scholarship Recipient 2022/2023 - Aug. 2022
- QuantumBlack/Office of AI Scholarship Recipient 2022/2023 - Aug. 2022
- Best ICT Competition Instructor, Huawei ICT Competition Sub-Saharan Africa - Apr. 2022
- 1st Place, Depart. of Computer Engr. Final Year Undergraduate Project Exhibition - Oct. 2021
- 3rd Best Engineering Graduate in Nigeria (Awarded by CODET) - Aug. 2021
- NCS (Nigerian Computer Society) Jim Ovia Scholarship Award - Jan. 2021
- Grand Prize Winner, Huawei ICT Competition Global Final - Cloud Track - Nov. 2020
- 1st Place, Huawei ICT Competition Regional Final (Southern Africa) - Cloud Track - Sept. 2020
- 3rd Place, Huawei ICT Competition National Final - Cloud Track - Dec. 2019
- Nigeria Higher Education Foundation Scholar (Class of 2019) - July 2019
- 2nd Runner Up, Professor Ayodele Awojobi Design Competition (PAADC) 3.0 - July 2019
- China-Nigeria October 1st Scholarship - Feb. 2018

PUBLICATIONS

- [1] Mustapha, A.J., *An Artificial Intelligence of Things (AIOT) based Assistive Smart Glass for the Visually Impaired*. [Poster Presentation]. Department of Computer Engineering, Ahmadu Bello University, Nigeria. [↗](#)

TALKS

Data Science Nigeria - Beyond Building Machine Learning Models [↗](#) **June 2021**

VOLUNTEERING

Kada Hive Innovation and Tech Hub **May 2022**
Robotics Instructor - Play Tech Kids Programme *Zaria, Nigeria*

Data Science Nigeria **June 2021**
Data Science Tutor *Zaria, Nigeria*

- Assisted participants in setting up data science software and packages.
- Supported the lead tutor in introducing participants to machine learning tools (such as numpy, pandas and scikit-learn).
- Participation Certificate. [↗](#)

Ahmadu Bello University **Feb. 2018 – Apr. 2021**
Tutor - Control Engineering (COEN303, COEN407, COEN507) *Zaria, Nigeria*

Computer Engineering, Ahmadu Bello University **Aug. 2019**
Instructor - Python Bootcamp for Kids *Zaria, Nigeria*

TECHNICAL SKILLS

Languages: Python, Scala, C++, MATLAB, SQL, Bash
ML Frameworks: PyTorch, Tensorflow, Keras, Apache-Spark
Cloud Services: GCP, AWS, Huawei Cloud Platform
Operating System: Linux (Ubuntu, Cent OS 7.*), Windows

HOBBIES

Watching anime; playing football; talks about AI and the future