

# MUSTAPHA ABDULLAHI

Espoo, Finland

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🌐 <https://mustious.github.io>

🔗 [mustious](#)

in [Mustapha Abdullahi](#)

## RESEARCH INTERESTS

§ q§1Machine Learning Systems, Reinforcement Learning, and Large Language Models

## EDUCATION

### Aalto University

*PhD Computer Science*

Advisor: **Prof. Bo Zhao**

**April 2024 - Present**

*Espoo, Finland*

### Queen Mary University of London

*MSc Artificial Intelligence [Computer Vision and Robotics] - **Grade: 80% (Distinction)***

Supervisor: **Prof. Bo Zhao**

**Sept. 2022 - Sept. 2023**

*London, U.K.*

### Ahmadu Bello University

*BEng Computer Engineering - **CGPA: 4.90/5.00 (First-class)***

Supervisor: **Prof. Habeeb Bello-Salau**

**Oct. 2015 - Nov. 2021**

*Zaria, Nigeria*

### Federal Government College, Kaduna

*West African Secondary School Certificate (W.A.S.S.C.E)*

**Sept. 2012 - July 2015**

*Kaduna, Nigeria*

## MINOR EDUCATION

Mediterranean Machine Learning Summer School (M2L School), Thessaloniki, Greece. **Aug. - Sept. 2023**

The Cornell, Maryland, Max Planck Pre-doctoral Research School (CMMRS), Germany **Aug. 2023**

Reinforcement Learning Summer School (RLSS), Barcelona, Spain **June - July 2023**

## INDUSTRY EXPERIENCE

### QuantumBlack AI Labs (McKinsey & Company)

*Software Engineer Intern*

**Oct. 2023 - Jan. 2024**

*London, U.K.*

- Developed a one-click CLI tool for effortless deployment of **Kedro** projects on **Databricks** Platform.
- Implemented essential client study feedback as integral components within software production pipelines.

### Play4Work

*Chatbot Developer*

**Feb. 2021 - March 2022**

*Canada(Remote)*

- 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 with Google DialogFlow.
- Reduced 60% of the company's workload of candidate's matching and responses processing.

### Huawei

*Big Data/Cloud Intern*

**Jan. 2020 - Feb. 2020**

*Lagos, Nigeria*

- Set up and managed FTP Server, WordPress (Windows & Linux), Windows Share Point Server, etc. on Huawei Elastic Cloud Server (ECS).
- Performed Relational Database migration using Cloud Data Migration Tool. Utilised Squoop to migrate data between Apache HDFS, Apache HBase, Apache Hive and MySQL database.
- Performed Data Analysis of Smart IoV 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.

## RESEARCH EXPERIENCE

### Large-Scale Data & Systems (LSDS), Imperial College London

*Research Intern [Master's Thesis] (Advised by: **Prof. Bo Zhao** & **Prof. Peter Pietzuch**)*

**June 2023 - Aug. 2023**

*London, U.K.*

- Evaluated tradeoffs among three distribution policies of MindSpore Distributed RL.

## PUBLICATIONS

- [1] Mustapha, A.J. 2021. *An Artificial Intelligence of Things (AIOT) based Assistive Smart Glass for the Visually Impaired*. [Poster Presentation]. Department of Computer Engineering, Ahmadu Bello University, Nigeria. [🔗](#)

## AWARDS & ACCOLADES

• Finnish Doctoral Program Network in Artificial Intelligence (AI-DOC) funded by Finnish Center of Artificial Intelligence (FCAI).	2025-2028
• Finland Fellowship [for doctoral studies at Aalto University]	2024
• AEGEAN Scholarship - Travel Grant to attend M2L School (one of 10 top students)	2023
• Best Graduating Engineering Student Award, NSE (Nigerian Society of Engineers)	2022
• 2023 Rhodes Scholarship Finalist [West Africa]	2022
• Google DeepMind Scholar	2022-2023
• QuantumBlack (McKinsey Company)/Office of AI Scholar	2022-2023
• i-Scholar Initiative (iSI) Awardee	2022
• Best ICT Competition Instructor, Huawei ICT Competition Sub-Saharan Africa	2022
• 1st Place, Dept. of Computer Eng. Final Year Undergraduate Project Exhibition	2021
• 3rd Best Engineering Graduate in Nigeria (Awarded by CODET)	2021
• NCS (Nigerian Computer Society) Jim Ovia Scholarship Award	2020-2021
• Grand Prize Winner, Huawei ICT Competition Global Final - Cloud Track	2020
• 1st Place, Huawei ICT Competition Regional Final (Southern Africa) - Cloud Track	2020
• 3rd Place, Huawei ICT Competition National Final - Cloud Track	2019
• Nigeria Higher Education Foundation Scholar (Class of 2019)	2019
• 2nd Runner Up, Professor Ayodele Awojobi Design Competition (PAADC) 3.0	2019
• NNPC/Total National Merit Scholarship Award	2018-2021
• China-Nigeria October 1st Scholarship	2018
• Federal Government Scholarship Award [Undergraduate Award]	2017-2021
• Agbami Special Medical and Engineering Professionals Scholarship Award	2017-2021

## TALKS

Kedro Databricks Deploy, QuantumBlack AI Labs, London, U.K.	Dec. 2023
Beyond Building Machine Learning Models <a href="#">🔗</a> , Data Science Nigeria, Nigeria	June 2021

## PROJECTS

<b>Evolving AlexNet CNN Maize Plant Disease Classification</b>	<b>July 2021 to Oct. 2021</b>
<ul style="list-style-type: none"><li>• Collaborated to propose a modified Binary Particle Swarm Optimisation (BPSO) algorithm to optimise the structure of the fully connected (FC) layers of CNNs.</li><li>• Developed a Tensorflow code implementation of AlexNet model</li><li>• Collaborated to derive an optimised model architecture achieving an improved accuracy of 98.3%.</li></ul>	

<b>iGlass</b>	<b>April 2020 - Oct. 2021</b>
<ul style="list-style-type: none"><li>• 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.</li><li>• Spearheaded the development of iGlass prototype.</li></ul>	

<b>CompengBot</b>	<b>March 2021 to April 2021</b>
<ul style="list-style-type: none"><li>• A fast and efficient chatbot to answer queries of students and the general public related to the computer engineering department. Deployed on the departmental website and Telegram page.</li><li>• Easy and improved access to information about department and school.</li><li>• Quick access to details about courses and lecturers contact.</li></ul>	

<b>Transfer Learning for Classification of Cat, Dog and Pandas</b>	<b>Dec. 2020</b>
<ul style="list-style-type: none"><li>• Used densenet-161 as feature extractor and achieved an accuracy of 97.3%.</li></ul>	

## VOLUNTEERING

<b>Arewa Data Science Academy</b>	<b>Feb. 2023 - Present</b>
<i>Machine Learning Mentor</i>	<i>Nigeria</i>
<b>2023 IEEE International Conference on Robotics and Automation (ICRA)</b>	<b>May 2023</b>
<i>Volunteer</i>	<i>London, U.K.</i>
<b>Kada Hive Innovation and Tech Hub</b>	<b>May 2022</b>
<i>Robotics Instructor - Play Tech Kids Programme</i>	<i>Kaduna, Nigeria</i>
<b>Data Science Nigeria</b>	<b>June 2021</b>
<i>Data Science Tutor</i>	<i>Zaria, Nigeria</i>
<ul style="list-style-type: none"><li>• Assisted participants in setting up data science software and packages.</li><li>• Supported the lead tutor in introducing participants to machine learning tools (such as numpy, pandas and scikit-learn).</li><li>• Participation Certificate. <a href="#">🔗</a></li></ul>	
<b>Ahmadu Bello University</b>	<b>Feb. 2018 – April 2021</b>
<i>Tutor - Control Engineering (COEN303, COEN407, COEN507)</i>	<i>Zaria, Nigeria</i>
<b>Computer Engineering, Ahmadu Bello University</b>	<b>Aug. 2019</b>
<i>Instructor - Python Bootcamp for Kids</i>	<i>Zaria, Nigeria</i>

## TECHNICAL SKILLS

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**Programming Languages:** Python, Scala, C++, MATLAB, L<sup>A</sup>T<sub>E</sub>X, ROS

**ML Frameworks:** PyTorch, Tensorflow, Keras, Kedro, Apache-Spark, Scikit-Learn, XGBoost

**Cloud Services:** GCP, AWS, Databricks Platform, Huawei Cloud Platform

**Operating System:** Linux (Ubuntu, Cent OS 7.\*), Windows

**Big Data Tools:** Hadoop, Apache Spark, Apache Hive, Hbase, MySQL, Huawei MapReduce Service, Gremlin

**Microprocessors:** Raspberry pi (zero, 3), Arduino, ESP32, ESP8266

**Soft Skills:** Leadership, Problem solving, Team Player, Time Management, Interpersonal Skills

## PROFESSIONAL MEMBERSHIPS

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- Black in AI, member
- Black in Robotics, member
- Nigerian Computer Society (NCS), member
- Data Science Nigeria, member
- Nigerian Society of Engineers (NSE), Graduate Member

## HOBBIES

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