

Kabiru O. Akande

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EXPERIENCE

- **Big Data Enterprise and Artificial Intelligence Laboratory (Big-DEAL)** Bristol, UK
Machine Learning Engineer Sept 2019 - Present
 - **Conversational-BIM:** Develop Conversational-BIM chatbot which uses automatic speech recognition and natural language understanding for improving construction site productivity. Employ AWS cloud services (Lex, Lambda and DynamoDB) and develop software architecture/data pipelines for deployment. Product POC is being trialled.
 - **Healthy-Air:** Healthy-Air uses time-series predictive models for improving poor indoor air quality. Build data architecture for cloud storage, train time-series models (RNN and LSTM) for day-ahead prediction and develop dynamic visualisation platform with REST APIs for real-time monitoring.
 - **ASPEC:** An AI system for predicting Embodied Carbon to achieve Net-Zero infrastructure projects. Train deep learning models. Productionise and automate POC deployment. Develop analytics platform for exploration.
- **MindfulChef** London, UK
Data Scientist July 2019 - Sept 2019
 - **Digital Waiter Recommendation System:** Build a personalised recommender system that outperform existing company framework by 30%. Pull data from AWS DynamoDB, develop innovative features by embedding recipes in recipe space (**recipe2vector**). Train multiple models (LR, RF & DNN). Employ MAP@K metric to evaluate ranked choices. Productionised with Flask REST APIs, dockerised and deploy product on Heroku.
- **Li-Fi Research and Development Center** University of Edinburgh, UK
Research and Teaching Assistant Nov 2015 - July 2019
 - **Channel Modelling:** Develop multilayer perceptron models for channel estimation. Model outperform domain state-of-the-art by 5%.
 - **Automated App:** Develop MATLAB application for automating experimental workflows. My app results in 50% improvement in productivity among Lab users.
 - **Teaching:** Provide technical support to students learning MATLAB, signal laboratory and advanced engineering maths.
- **Center for Petroleum Refining and Petrochemicals** Dammam, KSA
Research and Teaching Assistant Sept 2012 - Sept 2015
 - **Research Assistant - Machine Learning:** Obtain 3 US patents. Research on machine learning for oil reservoir characterisation. Develop novel features engineering technique that results in 10% improvement. Publish the technique with over 60 citations.
 - **Teaching Assistant - Stochastic Processes:** Taught MATLAB, detection and estimation theory, neural networks application and evolutionary algorithms.

EDUCATION

- **University of Edinburgh** Edinburgh, UK
PhD in Electrical Engineering Nov. 2015 – Feb. 2019
- **King Fahd University of Petroleum and Minerals, KFUPM** Dammam, KSA
Master of Science in Electrical Engineering; GPA: 93% Sept. 2012 – Dec. 2014
- **Ladoke Akintola University of Technology, LAUTECH** Ogbomoso, Nigeria
Bachelor of Technology in Electrical and Electronics; GPA: 86% Sept. 2004 – Dec. 2009

PROGRAMMING SKILLS

- **Languages:** Python, Javascript, SQL **Technologies:** AWS, Docker, Keras, Tensorflow, Pandas, Git

ACHIEVEMENTS AND AWARDS

- Three US Granted Patents| Endorsed as UK Promising Talent by Royal Academy of Engineering| Digital Waiter won most innovative prize at 2019 S2DS| University of Edinburgh PhD Bright Scholar
- **Personal Interest:** Footballing| Long Distance Running| Volunteering (Coding & Tutoring ML Concepts)