Olawale Victor Abimbola

abimbolaolawale41@gmail.com | Google Scholar | Portfolio | Linkedin | Github

Research Interests

Statistical Machine Learning, Deep Learning, Computer Vision, Medical Image Processing, Recommendation System, Information Retrieval

EDUCATION

Worldquant University

New Orleans, CA

Masters Degree - Financial Engineering

March 2022

Federal Polytechnic Ilaro

Ilaro, Nigeria

Higher National Diploma (Bsc Equivalent) - Statistics

October-2018

Experience

Data Scientist

March 2022 – Present

Creative Advanced Technologies

Dubai, United Arab Emirate

- Developed series of recommendation systems model (Item-based, User-based, Seasonal-Based, Market-Basket Analysis, e.t.c) which was integrated in an e-commerce platform for our client.
- Developed different recommendation engine for social media short videos and friend suggestion for a social media project for client.
- Developed content moderation AI based models which is based on detecting offensive languages, hate speech, harmful images, video.
- Developed a REST API endpoints for each of the recommendation systems using FastAPI, Docker and Kubernetics.
- Maintenance of all models and REST-APIs on the production pipeline

AI-Engineer/Data Scientist

Jan 2020 - March

Data Science Nigeria

Lagos, Nigeria

- Provided a GIS technical services and support particularly related to city/county applications using Java Open Street Map (JOSM), QGIS and ESRI Product and also extract relevant information from the overall geospatial data gathered from various sources, analyzed and visualized to solve problems related to intelligence which aided the Health Store Mapping and Analytics in Collaboration with the Bill Melinda Gates Foundation (BMGF).
- Developed an end-to-end computer vision model that could classify Community pharmacy's (CP) and Proprietary Patents and medicine Vendors(PPMV) stores in local areas in Nigeria
- Developed a Retail audit Computer Vision model using YOLO architecture to recognise over 500 FMGCs products in Nigeria, determine the visibility and providing detailed analytics based on the detected FMCGs products

Artificial Intelligence Research Assistant

Dec 2019 - Dec 2020

Africa4AI (Remote)

Johannesburg, South Africa

- Developed a computer vision model that can be able to detect **rooftop** from **satellite images** most especially in remote areas in Africa
- Worked on a thematic analysis of twitter conversation peoples believe on COVID-19
- Worked on an extensive study on the prediction of accidents on some major roads in South Africa

Artificial Intelligence Research Assistant

Oct 2018 - Nov 2019

Big T Info-tech Technologies

Asaba, Nigeria

 Maintaining and preparing robotic tools for use, and training of kids on robotics and computer programming and graphics design

Nov 2014 – Jan 2015 Student Intern

National Bureau of Statistics

Abeokuta, Nigeria • Delivering valuable insight from Data and helping with Weekly and Monthly Reports

- Verification of Data Integrity and Computational Analysis.
- Analysis of Data with Statistical Softwares, SPSS, EViews and R Programming language.

- [1] N. O. Adeboye and **Olawale, Abimbola**, An overview of cardiovascular disease infection: A comparative analysis of boosting algorithms and some single based classifiers, Statistical Journal of the IAOS, (2020), pp. 1–10.
- [2] N. O. ADEBOYE, **Olawale Abimbola**, AND S. O. FOLORUNSO, *Malaria patients in nigeria: Data exploration approach*, Data in brief, 28 (2020), p. 104997.
- [3] O. ADEKANMBI, W. F. OYEWUSI, W. WARRIE, A. ODUKOYA, **Olawale, Abimbola**, O. OSAKUADE, AND M. SALAMI, *Covnlp: A multisource covid-19 dataset for natural language processing*, International Workshop on Social Impact of AI for Africa, Association for the Advancement of Artificial Intelligence(SIAIA-AAAI-22), (2022).
- [4] S. Afolabi, W. Warrie, O. Banjo, O. Iwashokun, **Olawale, Abimbola**, N. Ngqambela, F. Soliu, O. Olasunkanmi, F. Sakinat, and S. Matshika, *When and where? proactively predicting traffic accident in south africa: our machine learning competition winning approach*, International Journal of Society Systems Science, 13 (2021), pp. 151–170.
- [5] S. A. AFOLABI, S. O. FOLORUNSO, Z. S. BUNYULA, O. O. BANJO, S. S. MATSHIKA, W. U. WARRIE, N. NGQAMBELA, A. E. ADEPOJU, H. RABOPHALA, Olawale, Abimbola, ET Al., Social listening: A thematic analysis of covid-19 discussion on social media, medRxiv, (2020).
- [6] B. AJOSE-ISMAIL, **Olawale, Abimbola**, AND S. OLORUNTOBA, *Performance analysis of different word embedding models for text classification*, International Journal of Scientific Research and Engineering Development, 3 (2020), pp. 1016–1020.
- [7] E. OGUNDEPO, S. FOLORUNSO, O. ADEKANMBI, O. AKINSANDE, O. BANJO, E. OGBUJU, F. OLADIPO, Olawale, Abimbola, E. OSEGHALE, AND O. BABAJIDE, An exploratory assessment of a multidimensional healthcare and economic data on covid-19 in nigeria, Data in brief, 33 (2020), p. 106424.
- [8] **Olawale Abimbola**, C. Ogbekile, and E. Oseghale, *Impact of covid-19 on local markets: An application of garch and markov-switching dynamic regression*, Preprint.
- [9] W. F. OYEWUSI, O. ADEKANMBI, **Olawale Abimbola**, C. ANEBELUNDU, O. A. OFINNI, AND S. ORIJI, A practical framework for building and managing digital crowdsourcing communities, Third symposium on Biases in Human Computation and Crowdsourcing, Delft, Netherlands, (2021).

Projects

Classifying COVID19 CT Scan Images | Python, TensorFlow, Keras, OpenCV, Transfer Learning, Medical Imagery

- Developed a data cleaning process for all the medical imagery.
- Created more data using Keras data generator and extracted features using transfer learning models
- Built a machine learning model using XGBoost and using Bayesian Optimization for parameter turning to archive 94% accuracy

Counting buildings Rooftop Using Computer Vision | Python, TensorFlow, Keras, Transfer Learning, Object Detection

- Developed a smooth annotation process for the image labelling
- Built and object detection model for detecting rooftops from satalite immages
- Deployed to FAST API and Dockerized

Technical Skills

Languages:Python, R, MATLAB, SQL, Frameworks: Flask, FastAPI, Django

Developer Tools: Git, Docker, Databricks, Google Cloud Platform, Amazon Web Services, VS Code, PyCharm, MLflow

Libraries: Pandas, NumPy, Matplotlib Scikit, NLTK, SpaCy, , TensorFlow, Keras

Honors and Awards

Workshop) 2019

- Second Place. World Bank Data4Governance: Improving Accountability and Service Delivery Hackaton 2020
- 3rd Place, Zindi Africa Uber Data Science Competition 2020

PRESENTATIONS AND PUBLIC SPEAKING

- A Deep Dive into Interactive Geospatial Visualization in Python using IpyLeaflet Conference Workshop: Python Community Africa Conference (Pycon Africa 2020), Virtual Conference
- Epidemiology Analysis on the Risk of Coronavirus Disease (COVID-19) in Nigeria Conference Workshop: COVID-19 Data Science Nigeria Virtual Conference, Virtual Conference
- A Gentle Introduction to Facial Recognition System Using OpenCV Conference Workshop: Python Community Nigeria Conference (Pycon Nigeria 2019), Abuja, Nigeria
- A Poster Presentation on" An overview of Ensemble Voting Classifier in Predicting Cardiovascular Disease Infection" Conference Workshop: Thirty-third Conference on Neural Information Processing Systems (Black in AI