

Kenechi Franklin Dukor

Education

2012–2016 **University of Lagos – BS(Hons), Mechanical Engineering.**
GPA: 4.38/ 5.0

2017–2019 **Other Certifications.**

- Machine Learning, Coursera
- Deep Learning Nanodegree, Udacity
- Deep Reinforcement Learning Nanodegree, Udacity

Skills

Programming Python, C#, ASP.NET, React, Javascript, LaTeX

Tools Git, PyTorch, Tensorflow 2.0, Scikit-Learn, NumPy, Pandas, VS Code, Linux, Jupyter Lab

Planning Agile, SDLC

Tools Github, Bitbucket, Microsoft Visio, Notion, Trello

Work Experience

Oct. 2018 – **Wapic Insurance Plc, SOFTWARE ENGINEER**

- Present
- Developed applications using C#, ASP.NET, React and Python, that automate the insurance processes for retail and corporate customers.
 - Mapped out the claims process in preparation for a digital transformation, as well as developed a process flow which suggests improvements on the current process.
 - Developed a ChatBot to enable customer engagement on the company's website while human agents are offline.
 - Developed a car classification model to ensure images uploaded during purchase of motor insurance policy are cars.

Jan. 2018 – **Herzer Research Group, University of Lagos, RESEARCH INTERN**

- June 2018
- Learned to develop and solve complex real life problems using mathematical representation.
 - Applied the Galerkin's Method of weighted residuals to solve problems of heat flow in surfaces.

Jan. 2017 – **San-Latunag Limited, DESIGN ENGINEER**

- May 2017
- Analysed and designed HVAC&R systems for Residential and Commercial building using AutoCAD and some other special tools for estimating cooling load.
 - Supervised the installation of the HVAC units on site.
 - Developed an excel sheet for the company, which contains a compilation of the relevant resources for quick computation of cooling load estimate for a building.

Research Experience

Thermal Performance Analysis of Rough Micro-Fins with Variable Cross-Sections [Published].

- Goal:** Develop a mathematical models that describes the behavior of smooth and rough micro fins of different shapes (cylindrical, rectangular, hyperbolic and parabolic) under temperature dependent thermal properties
- Method:** Galerkins's Method of Weighted Residuals was used as a method of solution (analytical method) to solve the models. The result were compared with experiments results.
- Outcome:** The rough micro-fins performed better at heat removal. This is because of roughness can be seen as extended fins.
- Recognition:** A paper which describes the research for cylindrical shaped fin was published at International Journal of Manufacturing and Material Engineering [paper]

Paper review: Assigning a Grade: Accurate Measurement of Road Quality Using Satellite Imagery by Gabriel Cadamuro, Aggrey Muhebwa and Jay Taneja , .

- Goal:** To review selected papers from ML4D at NeurIPS and possibly make improvements on the methods applied by the author. (This is an outcome AI Saturdays Lagos Research Track)
- Outcome:** ongoing.

Leadership Experience

- Feb. 2020 – **Wapic Insurance IT Division, SOFTWARE DEVELOPMENT LEAD**
Present
 - Lead the software team in the development of all platform and applications.
 - Liaised with the business owners on software to be built, their features and their respective timelines.
- Jan. 2019 – **AI Saturdays Lagos, CO-ORGANISER**
Present
 - Liaise with the lead instructors of the different learning track, on what curriculum to be taught.
 - Ensure the availability of resources required for learning such as venue and internet.
 - Ensure that the students are learning and projects are completed students.
- Nov. 2015 – **ASHRAE, University of Lagos, PRESIDENT**
Dec. 2016 *American Society for Heating Refrigeration and Air-Conditioning Engineers*
 - Managed the students branch activities and reported duly to the National branch and Region-at-large.
 - Conducted technical sessions for our members, organised events that invited experienced HVAC Engineers to our meetings.
 - Successfully increased the membership of the branch by about 30% and won a \$3000 ASHRAE scholarship for a student member.

Projects/Achievements

- **Machine Learning (Artificial Intelligence).**
 - Collated dataset of Nigerian currencies and implemented a Convolutional Neural Network model to classify Nigerian Currency using Fastai and obtained an average accuracy of 96%.
 - Implemented a Multi-Agent Reinforcement Learning model to play the game of tennis on Unity ML-Agents Tennis Environment, with an average score of 30 after 97 episodes.
 - Implemented a Convolutional Neural Network model to detect face emotion and obtained an average accuracy of 70%.
 - Achieved an outstanding Kaggle leader-board score in the Women in Data Science competition after implementing a Convolutional Neural network to predicts the presence of oil palm plantations in satellite imagery.
 - Implemented a reinforcement learning agent in the Unity ML-Agents Reacher Environment. The double-jointed arm agent learnt to maintain position at the target location in an observation space with 33 variables corresponding to position, rotation, velocity and angular velocity.
- **Software Development.**
 - Built a QR code attendance tracker app using google sheets as database. For low budget meetups, it keeps record of attendance with little effort. (soon to be open sourced)
 - Lead the development of all digital platforms in Wapic Insurance Plc., which includes the retail portal (*for retail purchases*), corporate portal (*for corporate purchases*), company website, and WapX Connect (*for internal fulfilment processes*);
- **Engineering.**
 - Together with a team of students, we designed and constructed an electric car using locally sourced materials.
 - Implemented a mathematical model that describes the thermal performance of different shape of micro-fins.

Volunteer Experience / Membership

Organising Committee.

- Lagos NeurIPS meetup 2019
- AI Saturday Lagos (Over 200 attendees)

Mentorship.

- National Youth Service Corp (2018)

Teaching.

- Machine Learning (AI Saturdays Lagos)
- Data Science (AI Saturdays Lagos)

Black in AI.

Invited Talks and Tutorials

October 2019 **Invited Talk at Tensorflow Roadshow.**