MARY AIYETIGBO

📞 864-633-8840 ✉ mdamilola019@gmail.com in linkedin.com/in/damilola-mary ⌂ github.com/dimky01

EDUCATION

Ph.D. Computer Science, Clemson University   **2021 – 2025**

MSc Computer Science, Clemson University   **2021 – 2023**

MSc Computer Science, Obafemi Awolowo University, Nigeria   **2014 – 2016**

B.Tech Computer Science, Ladoke Akintola University of Technology, Nigeria   **2006 – 2011**

TECHNICAL SKILLS

Programming and Tools: Python, R, C++, SQL, Git, GitHub, M.S Office 365.

Machine Learning: PyTorch, Keras, Scikit-Learn, Computer vision, NLP, CNN, RNN, Amazon Sagemaker, Linear regression, Logistic regressions, Decision trees, Random forest, SVM, KNN, Clustering.

Data Analysis and Visualization: Pandas, NumPy, SciPy, Matplotlib, Seaborn, Paraview.

Test Automation and Tools: Selenium, Gherkins, SoapUI, Postman, JMeter, TestNG.

EXPERIENCE

Clemson University | *Research Assistant*   **Jan 2021 – Dec 2024**

- Developed unsupervised learning approach using implicit neural representation for enhancing the quality of noisy video sequences.
- Implemented novel spatio-temporal sampling strategy for unsupervised video denoising using lightweight CNN architecture.
- Collaborating with the Medical University of South Carolina on denoising of calcium imaging to improve cell tracking and segmentation.
- Teaching assistant for undergraduates in C and C++ programming languages (150+) and graduate students in software design from 2021-2022.

INTEL Corporation | *Machine Learning Engineer Intern*   **Jul 2022 – Aug 2022**

- Worked with senior researchers to develop deep learning models designed for medical image segmentation.
- Enhanced the efficiency of the existing algorithm for brain tumor data segmentation, resulting in a significant performance boost.

Ricoh USA | *Digital Services AI/ML Intern*   **May 2022 – Jun 2022**

- Employed machine learning algorithms and NLP methods to conduct document categorization.
- Conducted data exploration to extract valuable insights for data analysis.

Flutterwave Nigeria | *Quality Assurance Analyst*   **Sep 2020 – Dec 2020**

- Created and deployed automation scripts utilizing the Selenium WebDriver framework and TestNG in Java for conducting functional and regression tests, effectively managing the execution sequence.
- Executed integration and performance assessments using Postman and JMeter to test payment APIs.

First Bank of Nigeria | *Software Test Analyst*   **Dec 2018 – Sep 2020**

- Led review meetings with developers, business owners, and business analysts, overseeing user acceptance tests (UAT) with active participation from business, compliance, and project team members.
- Executed meticulous defect reporting and tracking procedures during test execution, culminating in the creation of comprehensive Test Summary Reports following system test closure.
- Designed and implemented an efficient workflow system for the unit to monitor and track team members' weekly progress effectively.
- Organised onboarding training sessions for new team members.

Quality Certain Nigeria | *Software Test Analyst* **Nov 2015 – Dec 2018**

- Designed and executed test cases, ensuring that solutions aligned with specified requirements.
- Conducted comprehensive testing, encompassing end-to-end, functional, integration, and performance assessments.
- Facilitated on-the-job training sessions for new testers entering the field without prior software testing experience.

RESEARCH AND PROJECTS

Video Denoising using Video Implicit Neural Representation **Jan 2024**

- Employed implicit neural representation to simplify network structure to denoise short video sequences, bolstering its capacity to combat a variety of noise patterns effectively.
- Proven effectiveness in denoising natural and medical imaging video sequences.

Unsupervised Video Denoising **Feb 2024**

- Developed an unsupervised video denoising network tailored for high frame rate, utilizing the STW kernel to tackle varying noise types and intensities effectively.
- Outperformed both unsupervised and supervised state-of-the-art denoising methods, particularly excelling in denoising high-intensity noise.

Detecting Covid-19 in Chest X-Ray **Oct 2022**

- Optimized CNN model for classification of chest X-ray images into COVID-19, pneumonia, and normal cases, resulting in the model achieving a notable test accuracy of 98%.

Detection of Tumors in Brain scans **May 2022**

- Developed a classifier model for brain tumor classification in MRI brain scans. The model achieved a test accuracy of 96.47%.

RESEARCH PAPERS/MANUSCRIPTS

- Unsupervised Coordinate-Based Video Denoising - Submitted to 2024 IEEE International Conference on Image Processing (ICIP).
- Generalizable Unsupervised Video Denoising via Weighted SpatioTemporal Sampling - Submitted to European Conference on Computer Vision (ECCV) 2024.
- Unsupervised Microscopy Video Denoising - Submitted to Workshop for Computer Vision for Microscopy Image Analysis (CVMI) 2024.

CERTIFICATIONS

- **Udacity -** AI Programming with Python Nanodegree.
- **ISTQB -** Certified Tester Foundation Level (CTFL).