

# Oluwadara Adedeji

[Website](#) | [GitHub](#) | [LinkedIn](#) | [Google Scholar](#)

## SKILLS

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**Programming:** Python, C/C++, SQL, Shell Scripting  
**Frameworks and Toolkits:** NumPy, Pandas, Scikit-learn, PyTorch, Spark, Flask, MLflow, Docker, Terraform, Git  
**Cloud and Database:** AWS, GCP, Azure, PostgreSQL, DynamoDB

## EDUCATION

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**University College Dublin | September 2023 – August 2027**

- **Ph.D., Machine Learning**

**Thesis:** FinHealth: Passive Assessment of Mental Health Using Financial Data (and other data) via Machine Learning

**Carnegie Mellon University | August 2021 – May 2023**

- **M.Sc., Engineering Artificial Intelligence | CQPA: 3.95/4.0**

**University of Ibadan | July 2014 – May 2019**

- **B.Sc., Electrical and Electronic Engineering | CGPA: 6.2 / 7.0 | Grade: First Class Honours**

## EXPERIENCE

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**Data Science Consultant, Health Rhythms, Palo Alto, California | May 2024 – July 2024**

- Harnessed Databricks for mental health inferencing and actively contributed insights in weekly team meetings.
- Facilitated patient onboarding for mental health solution, addressing data collection challenges such as incomplete and messy data.

**AI Scientist, CyLab Africa / Upanzi Network, Rwanda | January 2023 – August 2023**

- Developed machine learning (ML) models to classify cattle using muzzle images, while collaborating in a Scrum (Agile) environment. Achieved a accuracy of  $> 90\%$  on VGG16 and Wide ResNet50 models.
- Designed and developed an advanced signature verification model leveraging Siamese CNNs for precise identity authentication.
- Engineered feature extraction and ML models to effectively detect smishing in SMS texts, enhancing security and fraud prevention capabilities.

## PROJECTS

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**Stress Prediction Using Multimodal Inputs | [Project link](#)**

- Implemented an end-to-end MLOps system to predict stress using combination of text (social media posts) and tabular (linguistic) features with  $>70\%$  accuracy.
- Included orchestration, experiment tracking, deployment (batch and online) and model monitoring.

**Tools:** Pandas, Scikit-learn, NLTK, MLflow, Flask, Mage, AWS Lambda, Kinesis and S3, Grafana, PostgreSQL

**Financial Fraud Analysis | [Project link](#)**

- Engineered an end-to-end data engineering pipeline, including data ingestion and orchestration, data transformation, and analysis. **Tools:** Mage, GCP, Spark, SQL, Bash, Looker Studio.

**Credit Approval Machine Learning System | [Project link](#)**

- Developed a credit approval system for assessing credit risk, with a client-side interface using REST API.

**Tools:** Python, Flask, TensorFlow, AWS, DynamoDB, Dash

**Deep Learning Framework from Scratch | [Project link](#)**

- Implemented deep learning algorithms including MLP, CNN, RNN, GRU using NumPy only. **Tools:** Python (OOP)

## PUBLICATIONS

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G. N. Kimani, **Adedeji O.**, Fashingabo P., et. al.(2023), "Cattle Identification Using Muzzle Images and Deep Learning Techniques," arXiv.org. Accessed: Sep. 05, 2024. [Online]. Available: <https://arxiv.org/abs/2311.08148v1>

**Adedeji, O.**, Owoade, P., Ajayi, O., Arowolo, O. (2022). Image Augmentation for Satellite Images. *arXiv preprint arXiv:2207.14580*. <https://arxiv.org/abs/2207.14580>

## HACKATHONS

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- Top 15 out of over 1000 participants in the *DataTalksClub MLOps ZoomCamp* | **05/2024 - 08/2024**
- Top 10 out of 25 teams in the 2024 *AWS Gen AI Game Day, Amazon Dublin*. | **05/2024**
- Finalist, *UCC AI Quest*: identification of vegetation patches from drone images using deep learning | **10/2023 – 01/2024**

## HONOURS AND AWARDS

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- Mastercard Foundation Scholarship at Carnegie Mellon University, **2021 - 2023**
- Dean's Honors Award for First-Class students in the Faculty of Technology, University of Ibadan **2014 – 2019**
- Iyabode Victoria Ojelade Memorial Scholarship for viable final year projects in Nigeria, **2018**
- Abel Ogundokun Odeleye Foundation Scholarship for Leadership and Academic Excellence, **2015 - 2017**
- MTN Foundation Scholarship for Science and Technology for 500 outstanding students in Nigeria, **2015 – 2018**
- Etisalat National Merit Award for 10 outstanding students in Computer Science, Electrical/Electronic Engineering and Economics from selected universities in Nigeria ×2, **2015 & 2016**
- Winner, Etisalat Innovation Moment Challenge for Etisalat National Merit Awardees, **2016**
- NNPC/Total National Merit Award, **2016 – 2018**
- Agbami Medical and Engineering Scholarship, **2015 – 2017**
- Overall Best Graduating Student, Sped International Secondary School Oyo, **2013**

## CONFERENCES / SUMMER SCHOOLS

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- Patient and Public Involvement (PPI) Summer School, *University of Limerick*, **2024**
- International Conference for Learning Representations, *ICLR*, **2023**
- IndabaX Rwanda, **2023**
- International Summer School for Advanced Studies on Biometrics, Alghero, Italy, **2023**

## ACTIVITIES

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### **Facilitator, *NSK.AI Community Workshop* | 09 / 2024**

- Presentation on AI in Healthcare: Opportunities and Requirements

### **Attendee, *Dublin Machine Learning Events* | 2023 – Present**

- Machine Learning Meet Up, *Dogpatch Labs*
- Dublin AI Meet Up, *Weights and Biases*
- *Dublin Tech Summit*

### **Member, *Data Science Club, CMU-Africa* | 2022-2023**

- Participated in the Umoja-Hack, Africa's inter-university machine learning competition.
- Emerged the highest-ranking team in Rwanda in the intermediate category and was featured on the CMU-Africa site and social media handles.
- Participated in the 2022 UN Big Data Hackathon, focusing on the energy prices and food inflation theme.

### **Scholar, *Mastercard Foundation Scholarship* | 2021- 2023**

- Facilitated a mental health training for about 120 young girls in a secondary school in Rwanda.
- Taught about 40 university students Python.

### **Volunteer, *Mentally Aware Nigeria Initiative (MANI)* | 07/2018 – 06/2021**

- Facilitated outreaches and workshops on mental health and necessary coping skills
- Organized conversation cafes, mental health walks and mental health sensitization of the community as the Programme Head of the Ibadan Chapter, Nigeria.