

Oluwadara Adedeji

<https://darasiemi.github.io/> | www.linkedin.com/in/oluwadara-adedeji
adedejioluwadara7@gmail.com | +353(0)892309236

EDUCATION

University College Dublin | September 2023 – August 2027

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

Thesis:- Passive Assessment of Mental Health Using Financial 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

WORK EXPERIENCE

Data Science Researcher, *Health Rhythms, Palo Alto, California* | Remote | **September 2023 – 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.
- 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 (Github: <https://github.com/darasiemi>)

Stress Prediction Using Multimodal Inputs

- 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

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

Credit Approval Machine Learning System

- 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

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

SKILLS

Programming: Python, C/C++, Java, SQL, Shell Scripting

ML & Big Data: NumPy, Pandas, Scikit-learn, PyTorch, Tensorflow, NLTK, spacy, OpenCV, Databricks

Cloud & Database: AWS, GCP, Azure, PostgreSQL, DynamoDB

Data Engineering & MLOps: Apache Spark, dbt, Flask, MLflow, WandB, Docker, Terraform, Git/GitHub, CI/CD

Project Management: Trello, GitLab, Agile/Scrum, Hills, Epics and User Stories

PUBLICATIONS

O.Adedeji, J. Olusegun, and M.Matthews (2025) “Money and Mental Health: Spending as a Mental Health Indicator – Psychological, Behavioral, Economic Perspectives and Data Collection, “Future Money Workshop CHI 2025 Available:

https://hci.money/assets/files/12-Adedeji_et_al.pdf

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>

CERTIFICATIONS

- **AWS Certified Machine Learning – Specialty**
- Microsoft Certified Azure Fundamentals
- MLOps Certification, *DataTalksClub*
- Data Engineering Certification, *DataTalksClub*

HACKATHONS

- 1st Place, Huawei Ireland Tech Arena on LLM inference optimization | **05/2025**
- Top 15 out of over 1000 participants worldwide in the *DataTalksClub* MLOps ZoomCamp | **05/2024 - 08/2024**
- Finalist, *UCC AI Quest*: identification of vegetation patches from drone images using deep learning | **10/2023 – 01/2024**
- Top 10 out of 25 teams in the *2024 AWS Gen AI Game Day, Amazon Dublin*. | **05/2024**

TEACHING EXPERIENCE

- Software Engineering | COMP 30830 | UCD | **Spring 2025**
- Introduction to Artificial Intelligence | COMP 30030 | UCD | **Autumn 2024**
- Data Science in Python | COMP 47670 | UCD | **Autumn 2024**
- Python Object Oriented Programming (OOP) | COMP 20270 | UCD | **Autumn 2024**
- Data Structures and Algorithms | COMP 20230 | UCD | **Spring 2024**
- Programming and Problem Solving for Data Analytics | 04-802 | CMU | **Fall 2022**

LEADERSHIP EXPERIENCE

Team Lead, Data Science Club, CMU-Africa | 2022-2023

- Led a team in the Umoja-Hack, Africa's inter-university machine learning competition.
- Emerged the highest-ranking team in Rwanda in the intermediate category of the Umoja-Hack and was featured on the CMU site (<https://www.ece.cmu.edu/news-and-events/story/2022/12/umoja-hack.html>) and social media handles.
- Also participated in the 2022 UN Big Data Hackathon, focusing on the energy prices and food inflation theme.

Public Relations Officer | Society of Electrical and Electronic Engineering Students, UI | Jan 2016 - July 2017

- Prompt and accurate dissemination of information to a department of about 250 students.
- Revitalized the SEEES PRESS organization and facilitated a blog for the organization @seesui.wordpress.com. Also wrote articles in the blog.

CONFERENCES & SUMMER SCHOOLS

- Future of Money Workshop, ACM CHI Human Factors in Computing Systems, **2025**
- International Conference for Learning Representations, **ICLR 2023**, Kigali, Rwanda
- Public Patient Involvement (PPI) Summer School 2024, University of Limerick, Ireland.

HONOURS AND AWARDS

- SFI Centre for Research Training in Machine Learning Full PhD Funding, **2023 - 2027**
- 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**
- 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 amongst 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**