POPOOLA, AYOMIDE PETER, MBCS

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Portfolio: https://peteray-dev.github.io/Portfolio_DS/   **GitHub profile**: https://github.com/peteray-dev/

PROFESSIONAL SUMMARY

Innovative data scientist with expertise in developing end-to-end machine learning solution, statistical modeling and data analysis. Committed to building a rewarding and challenging career, improving trust and safety in data-driven products, enhancing operational efficiency in a dynamic institution.

EDUCATION

- **M.Sc. Data Science (Distinction)**

  Manchester Metropolitan University, Manchester, United Kingdom

  - Data Management and Governance, Exploratory data analysis, Computational Mathematics and Statistics, Algorithms and Data Structures, Machine learning, Deep learning (Pytorch, NLP), High Performance Computing, Big Data Technologies (PySpark) and Version Control (Git).

- **B.Sc. Biochemistry (First Class Honours)**

  University of Ilorin, Ilorin, Nigeria, 2019

WORK EXPERIENCES

Data Scientist/Tutor

Cambridge Spark Limited (Lloyds Bank Group) United Kingdom, Sept 2024 – Dec 2024

- Contributed to the development of machine learning models achieving a 92% accuracy for fraud detection and risk analysis.
- Delivered data science training to graduate interns, resulting in 95% project completion.
- Designed and deployed models on cloud platforms, enhancing scalability and performance.
- Assessed and provided constructive feedback, improving project outcomes by 45%
- Designed and implemented CI/CD pipelines for machine learning workflows, enabling seamless data ingestion, preprocessing, and model deployment

Project Data Analyst

Funcast Consulting and Management Limited, Jun 2021 - Sept 2024

- Managed project budget, schedules and data, supervised project execution in Agriculture, Science, and Technology.
- Conducted data analysis and created reports to stakeholders and departmental heads to help make decision that improve execution time by 65%
- Identified potential risks and obstacles that might arise during the project based on past data which improve the company's profit by 36%
- Contributed to community development by collecting data from rural dwellers to design projects that generated revenues

Software Engineer

Hyperiondev Bootcamp, (CoGrammar Ltd), United Kingdom, Feb 2024 – Apr 2024

- Developed proficiency in Python programming and related frameworks through hands-on projects

- Designed and implemented algorithms and data structures, enhancing skills in unit testing and object-oriented programming.
- Hyperiondev portfolio: https://www.hyperiondev.com/portfolio/AP24010012737/

Software Developer (MERN)

Alabian Solutions Limited, Nov 2020 - May 2021

- Usage of front-end and backend JavaScript framework to develop high quality software reducing page load times by 35%.
- Develop highly scalable and testable applications, troubleshoot and debug applications.
- Built responsive user interfaces and integrated API/RESTful API for server-side technologies.
- Relevant ability to use databases and experienced in application maintenance and deployment.

SKILLS

- **Data Science Techniques:**
  - Data wrangling, data cleaning, data intuition, data mining, data ethics
  - Data ingestion, data transformation, data visualization and comprehensive analysis
  - Machine learning, statistical and predictive modelling
  - Maintaining CI/CD Pipelines, automated workflow and integrating tools like GitHub Actions, Jenkins, Docker and AWS for seamless deployment
  - Time Series Forecasting
- **Technologies:** AWS, PySpark, Pytorch, power BI, Scikit learn, Scipy, Pytest, Git, SLURM, Visual Paradigm, MySQL, Neo4j, Statsmodels, Flask
- **Operating System:** Linux, Windows, Mac
- **Programming Languages:** C#, JavaScript, SQL, Python, R
- **Generative AI:** LLM, GAN
- **Software Development**: HTML, CSS, Bootstrap, JavaScript, React, Express, Node Js
- Good communication, management and team playing skills.
- Outstanding thinking, and research skills

PROJECTS

- **Emotional AI for Mental Health Insights**: Developed a face expression detection system to aid mental health monitoring. Implemented CI/CD workflows with Jenkins, and deployed the solution on AWS
- **Insurance premium amount prediction model– End to End machine learning process:** Built and deployed an insurance premium prediction model. Implemented CI/CD workflows using GitHub Actions, containerized the application with Docker, and deployed the solution on AWS for scalable and secure hosting.
- **Clustering and Fraud Detection:** Built a model to detect fraudulent transactions with 95% accuracy, leveraging clustering techniques to identify suspicious transaction patterns.
- **End to End machine learning pipeline for wine quality prediction:** Built and deployed a wine quality prediction model with CI/CD pipelines using GitHub actions, Docker and AWS.
- **Hybrid Recommendation System**: Developed a Graph Neural Network (GNN)-based recommendation engine for food recipes, demonstrating ability to analyse and apply complex algorithms.
- **Car Price Prediction Model**: Created a machine learning model for predicting car prices using AutoTrader data, showcasing skills in predictive analytics.
- **Skin Cancer Classification**: Evaluated custom and pretrained CNNs for deep learning-based skin cancer classification.
- **Real Time Market Data Forecasting (Jane Street):** Predicting financial market responders
- **Performance Analysis of Molecular Dynamics Simulation:** Conducted a comprehensive performance analysis of molecular dynamics by comparing serial, OpenMP and MPI implementations.
- **Monet-like Painting Generation**: Generated Monet-like paintings using GAN and CyclicGAN, illustrating creativity in machine learning applications.
- **Transport Prediction in Spacecraft**: Developed models for predicting passenger transport anomalies using machine learning.

- **Food Detection**: Implemented CNN and VGG-19 for food detection, highlighting expertise in image classification tasks.
- **Big Data Analysis**: Conducted statistical testing on Transport for London cycling data from 2014, applying big data technologies.

VOLUNTARY AND EXTRACURRICULAR ACTIVITIES

Computing Insight UK, Cluster Challenge – October – December, 2024
- Analyzed and optimized compute-intensive workloads, balancing performance and energy efficiency
- Designed and implemented resource allocation strategies to efficiently distribute compute resources (CPU, GPU, nodes) for multiple workloads.
- Wrote and optimized SLURM job scripts to automate and manage workload runs on Alces Cloud HPC clusters.
- Worked with companies such as DNN, OCF, Logicalis, AlcesFlight

JPMorgan Chase & Co. Quantitative Research Virtual Experience Program on Forage - October 2024
- Completed a simulation focused on quantitative research methods
- Analyzed a book of loans to estimate a customer's probability of default
- Used dynamic programming to convert FICO scores into categorical data to predict defaults

Hackathon - Manchester Metropolitan University
Team Member March 2024
- Development of a story language translation application, contributing to business ideas in technology innovation.

Entrepreneurship and Vocational Training for Youths, Women and Rural Farmers
Trainer July 2021 – February 2023
- Provided business management and start-up analysis, counselling, and sharing business ideas.

HONOURS/AWARDS

2024	Member of the British Computer Society
2023	AI and Data Science Postgraduate Scholarship (Office for Students)
	Manchester Metropolitan University
2019	First Class Honours (Awarded)
2019	Best Graduating Student Award, Department of Biochemistry.
2019	University Scholar Award, University of Ilorin, Ilorin.