Nima Salah Osman

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Machine Learning Data Scientist with expertise in developing and deploying advanced predictive models and deep learning solutions. My proficiency spans Python, including **Scikit-learn and TensorFlow**, for applying sophisticated ML and deep learning techniques. I am adept at statistical modelling and leveraging Python libraries to process and analyse raw data. Proficient with platforms like **Jupyter Notebook, Tableau, and MySQL**. My background as a Specialist Biomedical Scientist provides a robust foundation in data management and cross-functional collaboration. Committed to delivering excellent results in data-driven roles.

Skills

Python — (Pandas, Seaborn, Matplotlib, NumPy, Scikit-learn, TensorFlow) | **R programming language** | **MySQL** | **Tableau** | **Google Colab** | **Github** | **VSCode** | **Jupyter Notebook** | **PySpark**

Professional Experience

08/2025 – Present
United Kingdom

Data Analyst, *NHSCFA*

- Deliver comprehensive analytical services to support the prevention, detection, and investigation of economic crime across the NHS.
- Establishing reusable pipelines and reports to support the transition from proof of concept to BAU.
- Utilise SQL, Python, and PySpark to manage, cleanse, and aggregate complex and large national datasets for actionable fraud intelligence, contributing towards recovering £495M.
- Apply advanced statistical techniques to examine anomalies and patterns indicative of fraudulent activity.
- Collaborate with Data Scientists and the response team to define methodologies and produce reports.
- Ensuring data processes strictly adhere to GDPR, the Data Protection Act 2017, and the Freedom of Information Act.
- Conduct regular data quality audits and develop new ETL methodologies to improve efficiency.

09/2017 – 02/2024
United Kingdom

Specialist Biomedical Scientist (Progressed from MLA in 2020), *Queen's Hospital*

- Designed and implemented a Tableau dashboard, integrated with the lab's LIMS, to track specimen workflow and pinpoint areas of delay.
- Facilitated targeted interventions to expedite urgent samples, resulting in a 66% reduction in the lab's backlog and decreased overall turnaround time.
- Worked in multidisciplinary settings, communicating complex laboratory data and findings to clinical teams to inform diagnosis and treatment plans.
- Contributed to the interpretation of data for patient management, demonstrating strong analytical and collaborative skills.

05/2016 – 07/2016
Italy

Research Intern, *University of Florence*

- Conducted research and meticulously collected data for a scientific project.
- Analysed and interpreted research findings, strengthening statistical analysis skills.
- Thrived in a diverse international team, improving communication and teamwork abilities.

Education

04/2023 – present
United Kingdom

Master of Science: Data Science, *University of Essex*

- **Developed and deployed advanced Machine Learning models**, including a regression model using Python and Scikit-learn to predict the likelihood of clients opening long-term deposit accounts.
- **Engineered Deep Learning solutions by building a Convolutional Neural Network (CNN) model** with Python and TensorFlow for image classification on the CIFAR-10 dataset, utilising Matplotlib and Seaborn for visualisation.
- **Orchestrated end-to-end data preparation and statistical modelling**, leveraging Python libraries (Pandas, NumPy) for robust data handling , and R programming to extract meaningful insights from large datasets.
- **Designed and implemented robust MySQL data management systems** for efficient data storage and retrieval, integrating with Python-based workflows in Jupyter Notebook and Google Colab.

09/2014 – 05/2017
United Kingdom

Bachelor of Science (Hons): Biomedical Science, *University of Portsmouth*

- Extensive training in statistical analysis, laboratory data management, and research.

Projects

Early Warning Model, *Utilised CoxPH model to predict systemic risk in NHS cancer services using large-scale operational data.*

CCN Model, *Build a CNN model for image classification of the CIFAR-10 dataset.*

Dashboard, *Displays real-time, practical snapshot of the laboratory's status using Tableau.*

Airbnb, *Utilised machine learning techniques to analyse the Airbnb NYC dataset and predict future growth trends in Airbnb listings.*

Bank Telemarketing Campaign, *Build a predictive model for identifying clients likely to open long-term deposit accounts.*