Yusuf Abdulle, MSc | Data Scientist

https://github.com/yabdulle | https://www.linkedin.com/in/yusufab/

Details

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London, England
United Kingdom

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Education

University College London, MSc
Clinical Neuroscience – Merit
(Sep 2020 — Dec 2021)

University of Brighton,
BSc (Hons) Biomedical Science -
First Class Honours
(Sep 2017 — Jul 2020)

Skills

Python

Pandas

NumPy

Matplotlib

Seaborn

R

Bash Scripting

Git

GitHub

Machine Learning

Graph Neural Networks

PyTorch Geometric

TensorFlow

Amazon AWS

Google Cloud Platform

Languages

English

Somali

Profile

A data scientist and neuroscience researcher with a proven track record of managing large-scale clinical databases and using advanced statistical and computational techniques to gain insights from complex datasets. Proven competency in Python and R, combined with knowledge of experimental design, data analysis, and machine learning.

Employment History

Translational Data Scientist, BioCorteX

Oct 2022 — Apr 2023   London

- Proficient data scientist liaising with a diverse set of stakeholders to gather user requirements, culminating in a production level system to simulate real-world scenarios.
- Effectively utilised agile methodology and leveraged Kanban boards to streamline workflows and ensure timely delivery of projects.
- Designed a first-principle computer simulation to identify potential pitfalls in clinical trials thereby improving patient treatment response and reducing trial associated costs.
- Developed and deployed an automated benchmarking tool to production that predicted DNA sequences against known databases resulting in a change in approach for internal engines to improve prediction results.
- Worked on visualising microbiome data for external stakeholders using Plotly to help better understand the complexities of the microbiome based on data provided.

Research Assistant, University College London

Sep 2021 — Oct 2022   London

- Designed and built a Graph Neural Network using the PyTorch Geometric and Deep Graph Library packages in Python to classify adjacency matrices derived from MRI scans of individuals living with Frontotemporal Dementia and Amyotrophic Lateral Sclerosis into disease and non-diseased to better identify early intervention for clinical trials.
- Worked with AWS EC2 instances to mass process 3T MRI scans and store in S3 buckets, saving weeks of processing time.
- Used data visualisation tools in R via various microbiome-related packages to demonstrate patient microbiome differences from clinical trial data.
- Collaborated with external stakeholders (Haleon) to develop mathematical models for healthcare systems with a mix of approaches including Monte Carlo and Markov Chain processes to improve patient flow in healthcare pathways.
- Using Python packages developed for network neuroscience, successfully highlighted neurotransmitter receptor distributions and associations with cortical atrophy in Frontotemporal Dementia and Amyotrophic Lateral Sclerosis, through dominance analysis.
- Worked on an inter-disciplinary team across the Division of Surgery, Mechanical Engineering and the Institute of Neurology to help model and create customised 3D neck collars for ALS patients.

Clinical Research Assistant, Royal Free NHS Foundation Trust

Oct 2020 — Sep 2021   London

- Collaborated with NHS Digital on the setup and maintenance of COVID-19 vaccine records.
- Worked on the progression of vaccine trials for various COVID vaccines (Novavax, Moderna and Valneva).
- Compiled documentation necessary for clinic visits, monitoring visits, and audits
- Contributed to academic oncology research initiatives.