## Professional Profile & Pursuit

I am a highly reliable, project focused bioinformatics & data scientist.

With over 6 years of experience accrued, I am self-driven, and I enjoy developing pipelines and drawing out analytical insights that are scientifically impactful.

I am especially looking for a position as a bioinformatics or data scientist to continue to discover, learn and build.

# Career Experience

### The Royal Marsden Hospital, London

Sept 2022 - Present as Trainee Clinical Bioinformatics Scientist

- In addition to the duties mentioned in my previous RMH role, I have developed and continue to develop new
  Command Line Interface Tools for various bioinformatics tasks e.g. uploading and retrieving data and
  detecting sample contamination.
- I am currently conducting research on the detection of Homologous Recombination Deficiency, and I have developed a pipeline for this purpose.
- As part of data analysis in my research and clinical work I measure performance metrics and apply **Statistical Tests** to assess the significance of differences and relationships in clinical data.
- My coursework provided opportunity to once again engage in explorative data analysis, this time on single cell RNAseq data using data science packages from Python.
- In my investigative work, I've used non-classical statistical methods like **Machine Learning** to predict classified data. I've also used **Bayesian Analysis**.
- I use Git, GitHub, Agile and CI/CD methodology in the development of all software I work on.
- I contribute to and conduct validations, verifications, audits, risk assessments, SOP writing & their maintenance. I also raise non-compliances, apply root cause analysis, assess clinical impact, suggest remedial and corrective action when errors with clinical impact arise.

#### The Royal Marsden Hospital, London

Jan 2022 - August 2022 as Bioinformatician

- I managed and ran the clinical bioinformatics pipeline on the High-Performance Computing (HPC) Cluster for the analysis of various NGS data, including tumour & germline Gene Panels, WGS, WES, RNAseq and ctDNA data.
- I quickly developed a thorough understanding of the Clinical pipeline and service more broadly, enabling me to **troubleshoot analysis issues** raised by clinical and research scientist colleagues to ensure smooth running of both the diagnostic service and translational research.
- I curated data stored within the **SQL database**, pulling, adding and modifying data stored.

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- My main project here was to investigate the methylome landscape of Undifferentiated Sarcoma using Reduced Representation Bisulphite Sequencing (RRBS) Illumina Infinium Methylation Array data (27K/450K/850K).
- I developed NGS pipelines for processing RRBS and Infinium Methylation Array data.
- I investigated the epigenetic data using various data science and statistical methods contributing to publication: <a href="https://doi.org/10.1038/s41586-022-04738-6">https://doi.org/10.1038/s41586-022-04738-6</a>.
- I worked as bioinformatics support to lab group colleagues, inter-group collaboration within the institute and with external researchers.
- I regularly presented research findings and papers to weekly lab group and journal clubs.

#### Animal and Plant Health Agency, Addlestone

### February 2018 - March 2019 as Bioinformatician

- Here I developed and maintained an NGS pipeline for salmonella serovar identification and surveillance in the UK.
- It was here that I translated a pipeline written in Bash into Python and in doing so I learnt to code using Python.
- I learnt and carried out **phylogenetic analysis** of bacteria samples, including for publication: <a href="https://doi.org/10.1016/j.vetmic.2018.11.003">https://doi.org/10.1016/j.vetmic.2018.11.003</a>.
- I wrote Standard Operating Procedures for quality control, NGS pipeline usage, Virtual Machine usage etc.

### St George's Healthcare NHS Trust, London

#### September 2013 – February 2018 as Biomedical support worker

- I was regularly rostered on tissue embedding orientating the tissue correctly in preparation for microtomy.
- I did microtomy using a microtome to cut thin sections onto slides for staining.
- I also did tissue staining for microscopic diagnosis and prognosis e.g. immunofluorescence.
- I wrote up and maintained Standard Operating Procedures.

# Education

MSc Clinical Science - Genomic Sciences (Clinical Bioinformatics Genomics)

University of Manchester, Expected completion in 2025

MSc Bioinformatics with Systems Biology

Birkbeck College, 2017

**BSc Biomedical Science (Hons)** 

London Metropolitan University, 2013

### Bioinformatics and Data Science Blog: https://dolapoa.github.io

IT Skills: Strong proficiency in MS Office, System Administration of Linux Operating Systems. Strong proficiency in Command Line Interface, HPC & VM usage. Experienced in version control with Git and GitHub: <a href="https://github.com/DolapoA">https://github.com/DolapoA</a>, and the iterative development cycle – including Agile plus CI/CD.

Coding/Scripting Languages: Bash, Python, R, HTML, CSS, MySQL

Languages: English native, beginner Spanish.

# Achievement(s) & Interests

**Award:** APHA Award for Best Lab Group, Salmonella Testing Team, 2018 I'm an avid reader and I enjoy calisthenics, cycling, football, tennis and weightlifting.

DOLAPO AJAYI