

Profile

I am a bioinformatician making a transition into cloud engineering with aspirations on becoming a cloud architect. I have acquired and developed strong computing and communication skills as a bioinformatician and a trainee clinical scientist. I have extensive experience of working with Linux, Bash, Python and R programming, HPCs, virtual machines, containerisation with Docker and Singularity, Git version control and code reviewing. I have a track record of diverse and interesting projects that I have led or contributed significantly to, such as the successful development of a whole genome sequencing pipeline to analyse Salmonella genomes for surveillance of notifiable Salmonella serovars in the UK. I have a good foundation in cloud computing having completed AWS education courses and worked on several hands-on projects provisioning various cloud architectures using Infrastructure as Code language Terraform. I am looking for graduate to mid-level roles in cloud engineering and cloud architecting.

Education

MSc Clinical Science - Genomic Sciences (Clinical Bioinformatics Genomics)

University of Manchester, Expected completion in
September 2025

Key modules: Software engineering (**Merit**), Applied Statistics, Data Science & Quality (**Distinction**), and Service Development & Delivery (Project Management)

MSc Bioinformatics with Systems Biology (Merit)

Birkbeck College, 2017

Key Modules: Biocomputing, Database Management.

BSc Biomedical Science (Hons)

London Metropolitan University, 2013

Cloud Projects

[Project 1](#) – Infrastructure for a Highly Available Web Application (finished)

- Components and AWS services used: VPC, Public. & Private subnets, EC2, ELB, MySQL database, NAT Gateway, Security groups
- This exercise enabled me to learn about each of these resources, how to connect them to each other in a network, how to secure them and how to provision them using Terraform code.

[Project 2](#) – Infrastructure for a Highly Available Web Application which shuts down and boots up at specified times of the day (actively building)

- Components and AWS services used: VPC, Public & Private subnets, EC2 ALB, MySQL database, NAT Gateway, Security groups, Auto Scaling Group, CloudWatch, IAM, Lambda and S3.
- Taking my time working through this project is reinforcing the fundamentals of networking and securing cloud infrastructure whilst also familiarising myself.

Courses & Certifications

AWS Educate Introduction to Cloud 101 [Badge](#)

AWS Educate, March 2025

Understanding Cloud Computing in general, AWS in particular, AWS Core services: S3, EC2, VPC, RDS, IAM, Lambda and CloudWatch

AWS Educate Introduction to Generative AI

AWS Educate, March 2025

[Badge](#)

Understanding: Foundation Models, Amazon Bedrock, Q Developer, SageMaker JumpStart, AWS Inferentia and Trainium

AWS Educate Getting Started with Networking

AWS Educate, March 2025

[Badge](#)

Understanding: OSI Model – 7 layers, VPCs, the allocation of IP addresses by CIDR blocks, AWS Direct Connect, AWS Private Link, AWS Transit Gateway, Firewalls & Security Groups and more

AWS Educate Getting Started with Storage

AWS Educate, March 2025

[Badge](#)

Understanding Amazon S3, Amazon EBS, Amazon EFS, Storage use cases, Storage security, Amazon S3 storage types, Amazon S3 costing, Migrating Big Data

AWS Solutions Architect Associate Certification (preparing)

AWS, 2025

Essentials of Digital Clinical Safety (DCS)

NHS Digital, 2024

[Credential on LinkedIn](#)

Awareness and understanding of regulations for the acquiring, storing, usage and protection of sensitive and confidential patient data.

Core Skills

- **IT Skills:** Good with Linux Operating Systems. Strong proficiency on the Command Line Interface. Very good with Bash, High Performance Compute Clusters & Virtual Machine usage, job schedulers, Containerisation (Docker and Singularity). Experienced in version control with Git, GitHub: <https://github.com/DolapoA> and software development best practices. I have also worked with REST API and the Agile and iterative development cycle. I understand CI/CD. I'm good with MS and Libre Office.
- **Coding/Scripting Languages:** Bash (miscellaneous CLI commands like AWK, Grep, Sed etc), Python, R, HCL Terraform, HTML, CSS, MySQL.
- **Style of Work:** Plan → Work → Reflect. Each day of mine is planned with tasks which I then proceed to complete. Planning is a matter of setting out tasks to complete and prioritising the order in which they are completed.
- **Method of Troubleshooting:** Is a matter of having a good foundational understanding of the system you are working within and learning how to read and interpret error messages. I also journal errors and how I resolved them wherever I work.
- **Communication:** I Identify key stakeholders early in taking on a project and keep my team up to date with the projects I work on. I look for opportunities to present work in the team and externally in relevant networks and conferences.

Career Experience

The Royal Marsden Hospital, London

Sept 2022 – Present as Trainee Clinical Bioinformatics Scientist

- I am leading on the development of a Clinical [Homologous Recombination](#) Deficiency (HRD) test for patients with High Grade Ovarian Cancer. This project involves a literature review, designing and developing a bioinformatics pipeline, assessment of performance metrics and exploratory analysis of results. I work with stakeholders to ensure that the project is meeting expectations and is on schedule.
- I have successfully developed CLI tools for the secure and efficient upload of patient data to external companies for analysis. To do this I worked with key stakeholders, namely Clinical Scientists, Research Scientists, Lab Scientists and my Line manager.
- I have successfully developed and delivered training in the use of Git, [GitHub](#) for version control for all script and software development in the bioinformatics team. I was also responsible for the change in policy to this new way of working.
- I have conducted or contributed to several validations, verifications, audits, risk assessments and writing of SOPs. I have raised non-compliances, applied root cause analysis, assessed clinical impact, suggested remedial and corrective action when errors with clinical impact have arisen.
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The Royal Marsden Hospital, London

Jan 2022 – August 2022 as Bioinformatician

- Working with Rocky Linux and Mac OS, I managed and ran the **clinical bioinformatics pipeline** on the **High-Performance Computing (HPC)** Cluster for the analysis of various NGS data.
- I managed and curated data stored within the SQL database, pulling, adding and modifying data stored.

UCL Cancer Institute, London

March 2019 –December 2021 as Bioinformatician

- Working with Linux Centos 7, my main project here was to investigate the methylome landscape of Undifferentiated Sarcoma using various data types including Reduced Representation Bisulphite Sequencing (RRBS) Illumina Infinium Methylation Array data (27K/450K/850K). My work for this project is published in [Nature](#) journal.

Animal and Plant Health Agency, Addlestone

February 2018 – March 2019 as Bioinformatician

- At the APHA I **successfully developed and maintained an NGS pipeline** for salmonella serovar identification and surveillance in the UK.
- It was at the APHA that, I mainly worked with Virtual Machines, using Linux Ubuntu and I translated a software written in Bash into Python and in doing so I learnt to code using Python.
- I carried out phylogenetic analysis of bacteria samples, including for [publication](#).
- I took charge of writing Standard Operating Procedures for quality control, NGS pipeline usage, Virtual Machine usage and more.

St George's Healthcare NHS Trust, London

September 2013 – February 2018 as Biomedical support worker

- I organised regular Continuous Professional Development talk events by liaising with Surgeons, Clinicians and Biomedical scientists.

Publications & Achievements

- **Professional Blog:** <https://dolapo.github.io>
- **Cloud Projects:** Designing and provisioning various AWS cloud infrastructure with Terraform IaC for different use cases: https://github.com/DolapoA/cloud_projects
- **Nature** – “Signatures of copy number alterations in human cancer” - <https://doi.org/10.1038/s41586-022-04738-6>
- **Veterinary Microbiology** – “Role of wild birds and environmental contamination in the epidemiology of Salmonella infection in an outdoor pig farm” - <https://doi.org/10.1016/j.vetmic.2018.11.003>
- **APHA Team Award 2019** – Winning team for Salmonella Surveillance

Hobbies & Interests

I'm an avid reader of history, philosophy, science, theology and more. I enjoy doing calisthenics, cycling, football, tennis and weightlifting.