



DR. JACK WALTON

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 jwalton3141
 Newcastle upon Tyne, UK

"Self-driven, adaptable and passionate technologist, with expertise in data engineering and data science, seeks challenging and intellectually stimulating work in a fast-paced environment."

Education


University of Newcastle upon Tyne, UK

 2016–2020

 PhD, Applied Mathematics

 "Bayesian Inference for Models of Collective Behaviour"


University of Newcastle upon Tyne, UK

 2012–2016

 Master of Mathematics, 1st Class


Experience

Data Engineer & Trainer

 2020–Present

 *Jumping Rivers Ltd.*

Notable Client Projects

 *Serverless & massively scalable web app with AWS* *Lead Developer*

Used Docker to productionise a Bayesian network model, and parameterised PDF report and data visualisation generation, via AWS Lambda and API Gateway (github.com/nationalarchives/DiAGRAM/tree/live/api).

Developed Terraform for IaC, provisioning development, staging and production environments (github.com/nationalarchives/DiAGRAM-terraform).

Automated front and backend deployment, controlling application life cycle with GitHub and GitHub Actions.


 *Azure Databricks & App Service for emergency response coordination* *Lead Developer*


Created Databricks init scripts to install custom ETL R package from Azure Repos.


Adapted existing ETL R scripts to write results to blob storage via {AzureStor}.


Improved typical application deploy time from ~20mins to ~2–3mins.

Responsibilities & Achievements

 Training tech stack product owner; prioritised, performed and delegated development and maintenance work to support delivery of ~150 JR training courses per annum.





 Taught over 250 hours of Python programming courses, with course difficulty ranging from "what is a variable?" to machine learning with sklearn.

 Developed and delivered courses on the probabilistic programming language Stan, data visualisation in Python, best-coding practices and how to implement them, and getting the most out of Posit (RStudio) Connect as a data scientist.




 Employed Ansible and Terraform to manage, provision and configure client and internal infrastructure, working with a number of different cloud providers (Azure, AWS, and DigitalOcean).

Skills









| Python | R | SQL | Stan | bash | git | Ansible | Terraform | Docker | Packer |

-  Confident and competent speaker; adept at communicating technical concepts and data insights to non-technical audiences.
-  Capable of performing all manner of duties from a CLI, scripting in bash, and using standard command-line tools such as ssh, grep, sed, vi, etc.
-  “Intermediate” git user & version control advocate, harnessing version control on all code-based projects, and using CI/CD tools to aid code stability, dictate release cycles, and enforce good-coding practices.
-  Strong numeracy skills, with an inherent understanding of Bayesian statistics, inference, model-fitting and prediction.

Community

-  Chief-organiser and chair of North East Data Science meetup series, overseeing ~50% growth in group membership. Co-organiser of North East Databricks meetup series.
-  Regular contributor on Stack Overflow—answering over 130 questions, reaching >340k users, and ranking in the top 8% of overall users.
-  Maintainer of jwalton.info, a programming blog and personal website which attracts 800–1000 unique monthly users, with ~85% of traffic acquired through organic search.

Awards

- | | |
|---|---|
| British Data Awards
 <i>Rising Star of the Year (finalist)</i> |  March 2023 |
| Dynamites22
 <i>Rising Star (finalist)</i> |  November 2022 |
| Northumbrian Water Hackathon
 <i>Best team solution</i> |  July 2019 |
| UK Conference on Multiscale Biology
 <i>Best poster award</i> |  April 2018 |