





# DR. JACK WALTON

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 jwalton3141  
 Newcastle upon Tyne, UK

*"PhD educated and analytical problem solver enjoys challenging and intellectually stimulating work"*

## Education

### University of Newcastle upon Tyne, UK

 PhD, Applied Mathematics; "Bayesian Inference for Models of Collective Behaviour"  2016–2020


### University of Newcastle upon Tyne, UK

 Master of Mathematics, 1st Class  2012–2016

## Work Experience

### Data Scientist, Trainer and Data Engineer

 Jumping Rivers Ltd.

 2020–Present

#### Notable Client Projects

 AWS Lambda for parameterised PDF reports Lead Developer

Created a custom container runtime to serve parameterised PDF reports via `{rmarkdown}` and AWS API Gateway.

Automated deployment with GitHub Actions and Terraform.


 Azure Databricks & Azure App Service for scalable web apps Lead Developer


Administered Databricks and prepared init scripts for R workloads.


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


Improved typical application deploy time from  $\sim 20$ mins to  $\sim 2$ – $3$ mins.

#### Responsibilities & Achievements


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

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

 Collaborated on the development of a suite of R packages to standardise and simplify internal project management and automate recurring tasks.

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




## Skills

 Confident and competent speaker; adept at communicating technical concepts to non-technical audiences.

 Harnessed version control on all code-based projects, and used CI/CD tools to aid code stability and enforce good-coding practices.

## Additional Experience

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-  Regular contributor on Stack Overflow—answering over 130 questions, and reaching >275k 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.
-  Worked as a tutor at Newcastle University's maths consultancy service; helping students and staff solve a broad variety of problems with maths and statistics.

## Awards

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### Northumbrian Water Hackathon

 *Best team solution*

 *July 2019*

### UK Conference on Multiscale Biology

 *Best poster award*

 *April 2018*

### EPSRC

 *PhD project funding (3.5 years)*

 *2016–2020*