





DR. JACK WALTON

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 jwalton3141
 Newcastle upon Tyne, UK

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



Employment

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 ~ 20 mins to ~ 2 – 3 mins using binary R package installs, and leveraging Docker build cache.

Responsibilities

-  Taught over 200 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.
-  Harnessed version control (primarily git) on all code-based projects, and used CI/CD tools to aid code stability and enforce good-coding practices.
-  Used docker to deploy R applications in a stable and scalable environment.
-  Used Ubuntu+i3wm as a day-to-day OS+wm, becoming confident performing all manner of duties from a CLI, scripting in bash, and using standard command-line tools such as `ssh`, `grep`, `sed`, `vi`, etc.
-  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.

Education

University of Newcastle upon Tyne, UK

 *PhD, Applied Mathematics*




 2016–2020

University of Newcastle upon Tyne, UK

 *Master of Mathematics, 1st Class*

 2012–2016

Additional Experience

-  Regular contributor on stack overflow—answering over 125 questions, and reaching 145k 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

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*