







# JACK WALTON

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

## Education

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### University of Newcastle upon Tyne, UK

 *PhD, Mathematics*

 2016–Present

### University of Newcastle upon Tyne, UK

 *Master of Mathematics, 1st Class*

 2015–2016








### University of Newcastle upon Tyne, UK

 *Mathematics BSc Hons, 1st Class*

 2012–2015

## Computing

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-  Considerable experience using the Python language in a number of diverse projects. Confident and experienced using the most popular data-science orientated packages (numpy, pandas, scipy, matplotlib, sklearn etc.).
-  Confident working from the command line, scripting in bash, managing remote machines over ssh, and using standard shell commands (ssh, scp, sed, awk, grep, find, etc.).
-  Maintain an online blog (jwalton.info) of original Python and Linux tutorials, attracting 800–1000 unique monthly users.
-  Regular contributor on stack overflow. Ranked in top 1% of users in 2019 having reached over 60k users.
-  Managed and collaborated on numerous projects utilising git, github and gitlab.
-  Familiarity with HPC services and various job schedulers (SLURM, PBS).
-  Notable experience working with; R; Docker; Stan; Matlab; Fortran; html; SPSS and  $\text{\LaTeX}$ .

## Awards

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### Northumbria Water Hackathon

 *Best team solution*

 July 2019

### UK Conference on Multiscale Biology

 *Best poster award*

 April 2018



### EPSRC



 *Research project funding*

 2016–2020

## Teaching Experience





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-  Delivered many 1–3 day programming workshops on Python, R and machine learning, whilst employed as a subcontractor for Jumping Rivers Ltd. Workshops were delivered to clients in academia and industry.
-  Independently organised, created and delivered various half-day workshops teaching Python,  $\text{\LaTeX}$ , git and github for Newcastle University.

-  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.
-  Involved in the teaching, marking and invigilation of multiple undergraduate modules. Improved communication skills assisting on modules from 'Problem Solving' to 'Statistics for experimental Psychology'.

## Research skills

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-  Experienced independent researcher working within different disciplines of mathematics, most notably applied mathematics and Bayesian statistics.
-  Clear scientific communicator, able to disseminate research and ideas to both specialist and non-specialist audiences.
-  Able to apply ideas and techniques from research to solve and troubleshoot real-world problems.
-  Confident and competent working as an independent researcher, or as part of a larger collaborative team.

## Contributed talks


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### Newcastle upon Tyne Data Science meetup

 *Bayesian statistics for Astrophysics*

 Nov 2019

### Newcastle University postgraduate forum

 *Hashing algorithms and password cracking*

 April 2019

### Newcastle University applied mathematics conference

 *The mathematics of collective behaviour*

 June 2018

## Conferences attended

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### Warszawa, Poland

*Why R? 2019*

 June 2019

### Montreal University, QC

*Society for Mathematical Biology. Contributed poster.*

 July 2019

### Newcastle University, UK

*Postgraduate Applied Maths conference. Organiser and speaker.*

 July 2018

### Nottingham University, UK

*UK conference on multiscale biology. Contributed poster.*

 April 2018

## References

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Available on request