







JACK WALTON


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

Education


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

-  Python expert. Considerable experience using numpy and pandas to handle and manipulate data. Confident using matplotlib to create custom data visualisations.
-  Confident scripting in bash, using standard shell commands (ssh, scp, sed, awk, grep, find, etc.)
-  Used git and github to manage multiple projects and collaborate with others.
-  Familiarity with HPC services and various job schedulers (SLURM, PBS).
-  Notable experience working with; R; Docker; Stan; Matlab; Fortran; html; SPSS and \LaTeX .
-  Regular contributor on stack overflow. Ranked in top 1% of users in 2019.

Awards

Northumbria Water Hackathon

 *Best overall solution*

 July 2019

UK Conference on Multiscale Biology

 *Best poster award*





 April 2018

EPSRC

 *Research project funding*

 2016–2020

Teaching Experience

-  Employed as a data scientist at Jumping Rivers Ltd. whilst completing PhD. Role involved delivering 1–2 day programming workshops for clients in industry and academia.
-  Organised, created and delivered various half-day workshops teaching Python, \LaTeX , git and github for Newcastle University.
-  Worked as a tutor at Newcastle University's maths consultancy service; helping students 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

- 📈 Experienced working within different disciplines of mathematics, most notably applied mathematics and Bayesian statistics.
- 📈 Clear presenter and communicator of ideas to specialists and non-specialists alike.
- 📈 Understanding of various MCMC algorithms and how to implement them programmatically.
- 📈 Confident and competent self-directed and independent researcher.
- 📈 Ability to think creatively and outside-the-box.

Conferences attended

Montreal University, QC

Society for Mathematical Biology. Contributed poster.

📅 July 2019

Newcastle University, UK

Postgraduate Applied Maths conference. Organiser and speaker.

📅 July 2018

Edinburgh University, UK

Collective dynamics and self-organisation. Contributed poster.

📅 June 2018

Nottingham University, UK

UK conference on multiscale biology. Contributed poster.

📅 April 2018

Talks given

- 🎤 *Collective behaviour: parameter inference to inform model selection* 📅 June 2019
- 🎤 *Hashing algorithms and password cracking* 📅 April 2019
- 🎤 *The mathematics of collective behaviour* 📅 June 2018
- 🎤 *PGR open day: Why Newcastle* 📅 November 2018

References

Available on request