

Matt Graham Research Fellow at National University of Singapore

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Education

- 09/2013 – 09/2017 PhD in Informatics, University of Edinburgh
Supervisor: Amos Storkey, Project: Auxiliary variable MCMC methods
- 09/2012 – 09/2013 MSc by Research in Neuroinformatics, University of Edinburgh
Result: Distinction, Project: Insect olfactory landmark navigation
- 10/2008 – 06/2012 MEng in Information and Computer Engineering, University of Cambridge
Result: First-class Honours / Distinction, Project: Measuring tissue stiffness with ultrasound

Experience

- 11/2017 – Research Fellow, Department of Statistics and Applied Probability, National University of Singapore.
Postdoctoral research position with Alex Thiery.
- 01/2014 – 04/2017 Teaching support, School of Informatics, University of Edinburgh
Teaching roles for undergraduate and masters level courses (details below).
- 07/2011 – 09/2011 Undergraduate research assistant, Engineering Department, University of Cambridge
Summer research project, exploring use of technology in supporting mental health care.
- 07/2010 – 09/2010 Junior software engineer, Granta Design, Cambridge
Summer internship at materials information software firm.
- 07/2009 – 08/2009 Educational resource development, NRIC, Cambridge
Summer internship with educational charity.
- 08/2007 – 08/2008 Engineering assistant, Mott MacDonald, Newcastle
Year in Industry placement in regional office of civil engineering and development consultancy.

Journal

- (12/2017) Asymptotically exact inference in differentiable generative models
Matthew M. Graham and Amos J. Storkey
To appear in: *Electronic Journal of Statistics*

Conference

- 08/2017 Continuously tempered Hamiltonian Monte Carlo
Matthew M. Graham and Amos J. Storkey
Proceedings of the 33rd Conference on Uncertainty in Artificial Intelligence
- 04/2017 Asymptotically exact inference in differentiable generative models
Matthew M. Graham and Amos J. Storkey
Proceedings of the 20th International Conference on Artificial Intelligence and Statistics
- 05/2016 Pseudo-Marginal Slice Sampling
Iain Murray and **Matthew M. Graham**
Proceedings of the 19th International Conference on Artificial Intelligence and Statistics

Software

- 05/2016 Theano: A Python framework for fast computation of mathematical expressions
Theano Development Team

Teaching

School of Informatics, University of Edinburgh

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|-------------------|---|
| 09/2016 – 04/2017 | Teaching assistant, Machine Learning Practical |
| 09/2016 – 11/2016 | Tutor, Machine Learning and Pattern Recognition |
| 01/2016 – 04/2016 | Teaching assistant, Probabilistic Modelling and Reasoning |
| 09/2015 – 01/2016 | Demonstrator, Machine Learning Practical |
| 11/2015 – 12/2016 | Marker, Machine Learning and Pattern Recognition |
| 09/2015 – 12/2015 | Tutor, Information Theory |
| 01/2014 – 03/2016 | Tutor, Probabilistic Modelling and Reasoning |

Outreach

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| 07/2015 – 05/2016 | Volunteer tutor, Queensferry High School, Queensferry One-to-one tutoring in applied mathematics through STEM Ambassadors scheme. |
| 01/2010 – 03/2011 | School placements, STIMULUS, Cambridge Placements at two local secondary schools in Cambridge assisting in teaching of STEM subjects. |
| 10/2008 – 06/2012 | Outreach volunteer, Cambridge University Engineering Department Assisting in workshops aimed at encouraging young people to consider engineering careers. |

Awards and scholarships

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| 12/2016 | Advances in Approximate Bayesian Inference workshop (NIPS 2016), Disney Research Paper Award |
| 05/2015 | Scottish Informatics and Computer Science Alliance (SICSA), Summer School Bursary |
| 09/2012 | University of Edinburgh, Neuroinformatics Doctoral Training Centre Scholarship (4 years) |
| 2010-2012 | University of Cambridge, Jesus College, Scholarships (Engineering Part IB/IIA/IIB) |

Computing

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| Languages | Python (expert), C (proficient), MATLAB (proficient), Javascript (proficient), C# (prior experience) |
| Frameworks | NumPy, SciPy, Theano, TensorFlow |
| Workflow | Git, Bash, Jupyter notebooks |
| Markup | Markdown, LaTeX, HTML |

Courses

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|-------------------|---|
| 08/2016 | Mountain Leader Award (summer) training, Mountain Training UK |
| 11/2015 | Outdoors Emergency First Aid, British Association of Ski Patrollers |
| 10/2015 – 11/2015 | Scientific Computing, Edinburgh Parallel Computing Centre, University of Edinburgh |
| 08/2015 – 09/2015 | Machine Learning Summer School, Kyoto University |
| 01/2014 – 03/2014 | Beginners Chinese (1.2), Confucius Institute for Scotland, University of Edinburgh |
| 09/2013 – 11/2013 | Beginners Chinese (1.1), Confucius Institute for Scotland, University of Edinburgh |
| 10/2010 – 03/2011 | Intermediate German (3), Language Unit, Cambridge University Engineering Department |
| 10/2009 – 03/2010 | Intermediate German (2), Language Unit, Cambridge University Engineering Department |