# Matt Graham Research Fellow at National University of Singapore

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#### Education

09/2013 - 09/2017PhD in Informatics, University of Edinburgh Supervisor: Amos Storkey, Project: Auxiliary variable MCMC methods 09/2012 - 09/2013MSc by Research in Neuroinformatics, University of Edinburgh Result: Distinction, Project: Insect olfactory landmark navigation 10/2008 - 06/2012MEng 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 - 04/2017Teaching support, School of Informatics, University of Edinburgh Teaching roles for undergraduate and masters level courses (details below). 07/2011 - 09/2011Undergraduate research assistant, Engineering Department, University of Cambridge Summer research project, exploring use of technology in supporting mental health care. 07/2010 - 09/2010Junior software engineer, Granta Design, Cambridge Summer internship at materials information software firm. 07/2009 - 08/2009Educational resource development, NRICH, Cambridge Summer internship with educational charity. 08/2007 - 08/2008Engineering assistant, Mott MacDonald, Newcastle Year in Industry placement in regional office of civil engineering and development consultancy.

#### **Publications**

#### Journal

12/2017 Asymptotically exact inference in differentiable generative models

Matthew M. Graham and Amos J. Storkey

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

# Teaching

## School of Informatics, University of Edinburgh

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

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

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

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

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