

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, Dept. of Statistics & Applied Probability, National University of Singapore
Postdoctoral research position with Alexandre Thiery.
- 01/2014 – 04/2017 Teaching support, School of Informatics, University of Edinburgh
Teaching roles for undergraduate and masters level courses (details below).
- 07/2010 – 09/2010 Junior software engineer, Granta Design, Cambridge
Summer internship at materials information software firm.
- 07/2009 – Educational resource development, NRIC, Cambridge
08/2009 Summer internship with educational charity.
- 08/2007 – Engineering assistant, Mott MacDonald, Newcastle
08/2008 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

Software

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

Teaching

School of Informatics, University of Edinburgh

09/2016 – 04/2017 Teaching assistant, Machine Learning Practical
09/2016 – 12/2016 Tutor, Machine Learning and Pattern Recognition
01/2016 – 04/2016 Tutor & teaching assistant, Probabilistic Modelling and Reasoning
11/2015 – 12/2015 Marker, Machine Learning and Pattern Recognition
09/2015 – 01/2016 Demonstrator, Machine Learning Practical
01/2015 – 04/2015 Tutor, Probabilistic Modelling and Reasoning
11/2014 – 12/2014 Marker, Machine Learning and Pattern Recognition
09/2014 – 12/2014 Tutor, Information Theory
01/2014 – 04/2014 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, Disney Research Paper Award
05/2015 Scottish Informatics and Computer Science Alliance, Summer School Bursary
09/2012 University of Edinburgh, Neuroinformatics Doctoral Training Centre Scholarship
2010-2012 University of Cambridge, Jesus College, Scholarships (Engineering Part IB/IIA/IIB)

Computing

Languages Python (expert), C (proficient), MATLAB (proficient)
Frameworks NumPy, SciPy, Theano, TensorFlow, JAX, FEniCS
Workflow Git, Bash, Jupyter notebooks
Markup LaTeX, Markdown, 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