# Matt Graham Machine learning PhD student at University of Edinburgh

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★ matt-graham.github.io

Informatics Forum, 10 Crichton Street, Edinburgh, EH8 9AB

### Education

09/2013 – 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

12/2014 – Consultant, Ellative

Part-time consulting for machine learning start-up.

01/2014 – 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, NRICH, 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.

### **Publications**

### Pre-prints

Continuously tempered Hamiltonian Monte Carlo

Matthew M. Graham and Amos J. Storkey

Asymptotically exact inference in likelihood-free models

Matthew M. Graham and Amos J. Storkey

#### Conference

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 —	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

08/2016	Scottish Informatics and Computer Science Alliance (SICSA), Summer School Bursary
09/2012	University of Edinburgh, Neuroinformatics Doctoral Training Centre scholarship (4 years)
07/2012	University of Cambridge, Jesus College, Scholarship (Engineering Part IIB)
07/2011	University of Cambridge, Jesus College, Scholarship (Engineering Part IIA)
07/2010	University of Cambridge, Jesus College, Scholarship (Engineering Part IB)

# Computing

Languages	Python (expert),	C (proficient), I	MATLAB (proficient),	Javascript (proficie	nt), 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