

Matt Rounds

PhD student working on Deep Bayesian models of visual cognition

3.33 Informatics Forum
University of Edinburgh
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EDUCATION

PhD Informatics, University of Edinburgh — *in Progress*

OCT 2016 - PRESENT

Thesis: 'Non-Parametric Bayesian Modelling of Human Visual Attention', Supervisors: Frank Keller, Chris Lucas

MSc(R) Data Science, University of Edinburgh — *Distinction*

SEPT 2015 - SEPT 2016

Thesis: 'Cognitive Plausibility of Deep Neural Networks with Attention', 2nd highest thesis mark in cohort, Supervisor: Frank Keller

MSc Intelligent Systems, University of Sussex — *Distinction*

SEPT 2014 - AUG 2015

Thesis: 'Free Energy, Bistable Transitions, and Binary Disambiguation', 1st in cohort, Supervisor: Anil Seth

MA Culture and Thought after 1945, University of York — *Distinction*

SEPT 2011 - AUG 2012

Thesis: 'Phenomenological Concatenationism', high distinction, Supervisor: Peter Lamarque

BA English and Related Literature, University of York — *First Class Honours*

OCT 2008 - JULY 2011

TEACHING

TA/Marker — *University of Edinburgh, 2016*

For Computational Cognitive Science, a 3rd-year undergraduate course, wrote and marked the coursework.

Tutor — *University of Edinburgh, 2016/17*

Tutored Machine Learning and Pattern Recognition, and Probabilistic Modelling and Reasoning, both Masters-level courses.

SKILLS/KNOWLEDGE

Python, Java, Matlab/Octave, Lua, SQL.

Tensorflow, Edward, Torch.

Machine Learning, Deep Neural Networks, Bayesian Non-Parametrics, Reinforcement Learning, Information Theory.

Cognitive Modelling, Neuroscience.

AWARDS

EPSRC CDT Scholarship funding 2015-present, EP/L106427/1

Jan Metzger Scholarship for MSC Intelligent Systems, 2014.

Chancellor's Masters Scholarship, Sussex 2014.

INTERESTS

Making science accessible, writing (fiction and non-fiction), cycling, hill walking, chess, philosophy.

PAPERS/POSTERS

2016, Oct — *Human-plausible Deep Networks for Image Description (Poster)*

Presented at Data Science Research Day, Informatics Forum, University of Edinburgh

2016, May — *Agent-based Modelling of Human Visual Attention (Poster)*

Presented at 3DT and Friends, Informatics Forum, University of Edinburgh

2012, June — *Revisiting the Paradox of Fiction: A Phenomenological Account (Talk)*

Presented to CMODS postgraduate forum, University of York

VOLUNTEERING

Committee Member — *Centre for Modern Studies Postgraduate Forum Committee, 2011-2012*

Organised the fortnightly presentation of two papers to the forum, and chaired some of the following discussions. Organised an international one-day conference in May 2012, chaired one of the panels.

Nightline Volunteer — *University of York Nightline, 2008-2011*

Over 600 hours of twelve-hour night shifts, providing telephone, email and drop-in pastoral services to University of York students. Held several positions of responsibility within the organisation, including info co-ordinator. Helped train approx. 75 new nightliners over three years.

WORK (NON-ACADEMIC)

Library Assistant — *Walsall Libraries, Walsall, 2013-2014*

Part of a team providing the public with everything from IT solutions to reading advice, whilst simultaneously effecting the day-to-day running of the libraries. Founded and subsequently ran a chess club for 6-12 year olds at Aldridge Library, having secured funding for supplies.

Gallery Assistant — *New Art Gallery, Walsall, 2013 (April-August)*

Worked on the gallery floors both as an invigilator with responsibility for the artworks and as a point of contact for members of the public with queries. Was involved in the Back to Front exhibition, where front of house staff chose artwork for display.

Bookseller — *OUP Bookshop, High Street, Oxford, 2008 (February-October)*

Promoted from Junior Bookseller, answered the phone, dealt with customers, cashed up, helped run temporary bookstalls at conferences, did the morning banking, learnt to work as part of a small team, later was responsible for other members of staff, won an employee of the month award.

REFERENCES

Professor Frank Keller — keller@inf.ed.ac.uk

Dr. Chris Lucas — c.lucas@ed.ac.uk