Matt Chapman-Rounds

3.33 Informatics Forum
University of Edinburgh
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Motivated and driven researcher looking for an intellectually stimulating and challenging full time position. A uniquely interdisciplinary skill set supported by an education in both the Arts and the Science.

SELECTED WORK EXPERIENCE

Teaching Fellow— *Cambridge Spark, 2020-present*

Involved in both content creation and teaching. Work focussed on MCMC, Explainable AI, Optimisation, Hierarchical clustering.

Academic Fellow, Data Science— *QuantumBlack, 2019*

Consulted with a small team on internal R&D, with a focus on Explainable AI. Helped develop internal toolkits.

Data Science Intern— *QuantumBlack, Summer 2018*

Worked with a small team on internal R&D, with a focus on two topics: Explainable AI, and Transfer Learning in Neural Networks. Goal was to improve QB's main deliverable; end-to-end Ml pipelines for clients.

TA/Tutor— *University of Edinburgh, 2015-2019*

Taught and created content for masters-level Informatics course; Machine Learning and Pattern Recognition, Probabilistic Modelling and Reasoning, Computational Cognitive Science

PAPERS

2020, July - *Clusters In Explanation Space: Inferring Disease Subtypes from Model Explanations*

Marc-Andre Schulz, **Matt Chapman-Rounds**, Manisha Verma, Danilo Bzdok, Konstantinos Georgatzis. *Sci Rep* 10, 12900 (2020): https://www.nature.com/articles/s41598-020-68858-7

2019, November - *EMAP: Explanation by Minimal Adversarial Perturbation*

Matt Chapman-Rounds, Marc-Andre Schulz, Erik Pazos, Konstantinos Georgatzis. arXiv preprint arXiv:1912.00872
https://arxiv.org/pdf/1912.00872.pdf

2019, July - *Inattentional Blindness in Conjunction Search*

Matt Chapman-Rounds, Christoper G. Lucas, and Frank Keller. Proceedings of the 41st Annual Meeting of the Cognitive Science Society, 1:2688-2694, 2019. https://mindmodeling.org/cogsci2019/papers/0459/0459.pdf

SKILLS/KNOWLEDGE

Python, Java, Matlab/Octave, R, SQL, C#.

Edward, git, pytorch, scipy, sklearn, pandas, Unity.

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

Cognitive Modelling, Neuroscience, Eyetracking.

AWARDS

QuantumBlack Data Science Bursary 2019-2020.

EPSRC CDT Scholarship funding 2015-2019, EP/L106427/1

Jan Metzger Scholarship for MSC Intelligent Systems, 2014.

Chancellor's Masters Scholarship, Sussex 2014.

INTERESTS

Writing, running, hill walking, chess, philosophy.

EDUCATION

PhD Informatics, University of Edinburgh — ***writing up***

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

VOLUNTEERING

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.

REFERENCES

Professor Frank Keller - *keller@inf.ed.ac.uk*

Dr. Chris Lucas - *c.lucas@ed.ac.uk*

Dr. Chris Buckley - *c.l.buckley@sussex.ac.uk*