

James Ryan Requeima

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EDUCATION

University of Cambridge

Ph.D. in Engineering, Machine Learning Group

Advisors: Richard E. Turner and José Miguel Hernández-Lobato

Cambridge, UK

2016-Present

University of Cambridge

MPhil. in Machine Learning, Speech and Language Technology

Advisor: Zoubin Ghahramani

Thesis: Integrated Predictive Entropy Search for Bayesian Optimization.

Awarded with distinction.

Cambridge, UK

2015-2016

McGill University

M.Sc. in Mathematics

Advisor: Daniel Wise

Thesis: Relative sectional curvature in compact angled 2-complexes.

GPA: 3.9/4.0.

Montreal, CA

2006-2008

University of Manitoba

B.Sc. Honours in Mathematics

GPA: 4.3/4.5.

Winnipeg, CA

2001-2006

PROFESSIONAL EXPERIENCE

Invenia Technical Computing

Senior Researcher

Developed and implemented machine learning techniques for Invenia's automated electricity grid and wind farm forecasting systems as well as risk management strategies for trading systems. Cofounded Invenia's research office, Invenia Labs, in Cambridge UK which currently has 40 full-time employees.

Cambridge, UK

2013 - present

Montreal Institute for Learning Algorithms (MILA)

Research Intern

Supervisor: Yoshua Bengio

Montreal, CA

2019-2020

University of Cambridge, Engineering Department

Teaching Assistant

Advanced Machine Learning course.

Cambridge, UK

2018

Dawson College, Department of Mathematics

College Professor

Taught Undergraduate level mathematics courses: Calculus, Linear Algebra, Probability and Statistics, Applied Mathematics for Civil Engineering, Business, Chemical Technology.

Montreal, CA

2008 - 2019

Community Service

Reviewer:

ICLR: 2017, 2021. ICML: 2021. NeurIPS: 2020, 2021, 2022.

Elected Student Representative:

Mphil in Machine Learning, Speech and Language Technology program, Cambridge University, 2015.

ACADEMIC AWARDS

| | |
|---|------------------|
| SALTISE project grant to promote student-centered active learning in science. | 2013 |
| NSERC Postgraduate Scholarship. | 2006-2008 |
| Institut des Sciences Mathématiques award. | 2006-2007 |
| UofM Student Union Scholarship | 2004, 2005, 2006 |
| UofM General Scholarship | 2002, 2003 |

PUBLICATIONS

Active Learning with Convolutional Gaussian Neural Processes for Environmental Sensor Placement.

T. R. Andersson, W. P. Bruinsma, S. Markou, D. C. Jones, J. S. Hosking, J. Requeima, A. Coca-Castro, A. Vaughan, A. Ellis, M. Lazzara, and R. E. Turner.

NeurIPS Workshop on Gaussian Processes, Spatiotemporal Modeling, and Decision-making Systems, 2022.

Challenges and Pitfalls of Bayesian Unlearning.

A. Rawat, J. Requeima, W. Bruinsma, and R. E. Turner.

ICML Updatable Machine Learning Workshop, 2022.

Practical Conditional Neural Processes Via Tractable Dependent Predictions.

S. Markou*, J. Requeima*, W. Bruinsma, A. Vaughan, and R. E. Turner.

International Conference on Learning Representations, 2022.

Efficient Gaussian Neural Processes for Regression.

S. Markou*, J. Requeima*, W. Bruinsma, and R. E. Turner.

ICML Uncertainty and Robustness in Deep Learning Workshop, 2021.

The Gaussian Neural Process.

W. Bruinsma, J. Requeima, A. Y. K. Foong, J. Gordon and R. E. Turner.

Advances in Approximate Bayesian Inference Symposium, 2020.

TaskNorm: Rethinking Batch Normalization for Meta-Learning.

J. Bronskill*, J. Gordon*, J. Requeima, S. Nowozin, and R. E. Turner.

International Conference on Learning Representations, 2020.

Convolutional Conditional Neural Processes .

J. Gordon*, W. Bruinsma*, A. Y. K. Foong, J. Requeima, Y. Dubois, and R. E. Turner.

International Conference on Learning Representations, 2020.

Fast and Flexible Multi-Task Classification Using Conditional Neural Adaptive Processes.

J. Requeima*, J. Gordon*, J. Bronskill*, S. Nowozin, and R. E. Turner.

Neural Information Processing Systems, 2019.

The Gaussian Process Autoregressive Regression Model (GPAR).

J. Requeima*, W. Tebbutt*, W. Bruinsma*, and R. E. Turner.

International Conference on Artificial Intelligence and Statistics, 2019.

Characterizing and Warping the Function space of Bayesian Neural Networks.

D. Flam-Shepherd, J. Requeima, and D. Duvenaud.

NIPS Bayesian Deep Learning Workshop, 2018.

Parallel and distributed Thompson sampling for large-scale accelerated exploration of chemical space.

J. M. Hernández-Lobato*, J. Requeima*, E. O. Pyzer-Knapp, and A. Aspuru-Guzik

International Conference on Machine Learning, 2017.

Mapping Gaussian Process Priors to Bayesian Neural Networks.

D. Flam-Shepherd, J. Requeima, and D. Duvenaud.

NIPS Bayesian Deep Learning Workshop, 2017.

** indicates equal contribution*