

Benjamin Rhodes

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EDUCATION

UNIVERSITY OF EDINBURGH | PHD IN DATA SCIENCE

September 2018 – Sep 2021

- Supervised by Michael Gutmann.
- Research interests include contrastive representation learning, density-estimation and energy-based modelling.

UNIVERSITY OF EDINBURGH | MSc IN DATA SCIENCE | DISTINCTION

September 2017 – Sep 2018

- Supervised by Michael Gutmann.
- Master's thesis on 'Variational noise-contrastive estimation', which led to publication at AISTATS 2019.

UNIVERSITY OF BRISTOL | MSc IN MATHEMATICS | 1ST CLASS

September 2011 – Sep 2015

- Excelled at Analysis & Algebra, obtaining 90%+ in 'Advanced Topics in Analysis' and in 'Algebraic Topology'.
- Master's thesis on dimension theory of dynamical systems that was praised for its "considerable amount of original thinking".

PUBLICATIONS

TELESCOPING DENSITY-RATIO ESTIMATION | NEURIPS 2020 | SPOTLIGHT (TOP 3% OF SUBMISSIONS)

Benjamin Rhodes, Kai Xu & Michael Gutmann

Introduced a new framework for the estimation of ratios between highly dissimilar densities in high-dimensional spaces.

VARIATIONAL NOISE-CONTRASTIVE ESTIMATION | AISTATS 2019 | POSTER

Benjamin Rhodes & Michael Gutmann

Proposed a new technique for the estimation of energy-based, latent variable models.

PROFESSIONAL EXPERIENCE

THE PHOENIX PARTNERSHIP | SOFTWARE DEVELOPER

June 2016 - January 2017 | Leeds, UK

Maintained safety-critical clinical software that provides electronic health records to a large fraction of the UK.

UNIVERSITY OF BRISTOL | TEACHING ASSISTANT | ANALYSIS & ALGEBRA

September 2015 - March 2016

Received 96% satisfaction rate, and praised for communicating technical concepts in intuitive, clear language.

LANGUAGES

PROGRAMMING

Python • TensorFlow • PyTorch • \LaTeX

SERVICE

NEURIPS 2020 | REVIEWER