James Thornton

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GitHub: https://github.com/JTT94/

Experience

Machine Learning Researcher, Rhodes AI Lab	Jan – Sept 2019

- Developed deep NLP models to assess online abuse, working with Google Jigsaw

Analyst, Markets and Analytics Group, BlackRock	2016 – 2018

- Quantitative role supporting portfolio managers for banking and government clients
- Built out a portfolio optimization and hedging framework
- Implemented scalable valuation pipelines for loan and securities portfolios
- Developed a variable selection and time-series modelling framework

Summer Analyst, Portfolio Analytics Group, BlackRock	Jun – Aug 2015

- Valuation and Risk Assessment of structured products

Scholarship Intern, EY:	2012 – 2015

- University scholarship including internships across the advisory service line

Education

University of Oxford, Computational Statistics and Machine Learning, DPhil (PhD)	2018 – 2022

- Supervised by George Deligiannidis and Arnaud Doucet (Oxford/ Google DeepMind)
- Interested in Optimal Transport and the intersection of Monte Carlo with Machine Learning

Warwick University, Master's in Statistics with Mathematics	2015 – 2016

- *Distinction*
- Dissertation: *Markov Chain Monte Carlo for Bayesian Non-Parametric Mixture Models (89%)*
  - Supervised by Anthony Lee
  - Including ensemble classification and unsupervised topic modelling of Twitter data

Warwick University, BSc Mathematics, Operational Research, Statistics and Economics	2012 – 2015

- *First Class Honours* (top 1 to 3 exam performance, depending on year)

Hymers College:	2010 – 2012

- A-levels*: 5 A** in *Mathematics, Further Mathematics, Chemistry, Physics, Economics*
- Mathematics A-level taken 2 years early

Awards and Scholarships

- *Tukey Award* for highest scoring Statistics Master's dissertation (89%)	2016
- *Statistics Senior Scholarship*	2015 – 2016
- *Goldman Sachs Student Challenge Category Winner*	2013 – 2014
- *Karl Pearson Award* for Top Exam Performance (91%)	2014
- *EY Scholarship*	2012 – 2015

Technical

Programming languages: Python, R, C++ (in order of proficiency)
Other: AWS, GCP, SQL, Unix, git, Slurm

Teaching and Reviewing

NeurIPS Reviewer	2020

Class Tutor, Department of Statistics, University of Oxford:	Jan – May 2020

- 4th year undergraduate / MSc Advanced Simulation Methods

Teaching Assistant, Balliol College, University of Oxford:	2019 – 2020

- Introductory Calculus, Probability, Multivariable Calculus, Statistics and Data Analysis