James Thornton

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Experience

Machine Learning Researcher, Rhodes Artificial Intelligence Lab (RAIL): January 2019 – September 2019
- Developed NLP models to assess online abuse

Analyst, Financial Markets Advisory, BlackRock: 2016 – 2018
- Modelling and analytics role within the Markets & Analytics Group (MAG), focusing on data, modelling, and technical solutions
- Projects include valuation, optimization and hedging; time-series modelling; building scalable data pipelines
- Role also included communicating methodology to senior clients, including CEO level

Summer Analyst, Portfolio Analytics Group, BlackRock: June – August 2015
- Valuation and Risk Assessment of structured products

Category Winner, Goldman Sachs Student Challenge 2013-14: November 2013 – February 2014
- One of three category winners, developed a globalization strategy for a small UK business
- Presented to business' CEO in the national final

Scholarship Summer Intern, UK&I Advisory, EY: 2012 – 2014 (3 summer internships)
- Consultancy across Oil and Gas, Utilities and Actuarial

Education

University of Oxford; Statistical Science, DPhil (PhD): 2018 – Present
- Supervised by George Deligiannidis (Oxford) and Arnaud Doucet (Oxford/ DeepMind) within the Computational Statistics and Machine Learning (CSML) group in the Department of Statistics
- Research on distributed and gradient based inference in Statistics and Machine Learning, projects include:
  - Differentiable Particle Filtering for Variational Inference on Time-series (Neurips 2020, under review)
  - Masked Bouncy Particle Sampler: A Parallel, Non-reversible MCMC Procedure

Warwick University; Master's in Statistics with Mathematics: 2012 – 2016
Integrated Master's specializing in Statistics with Mathematics - Distinction
- Dissertation: Markov Chain Monte Carlo for Bayesian Non-Parametric Mixture Models
  - Including applications in topic modelling of Twitter data and classification of Italian wines
  - Tukey Award for highest scoring Statistics Master's dissertation (89%)
  - Supervised by Anthony Lee
- Statistics Senior Scholarship

Warwick University; BSc Mathematics, Operational Research, Statistics and Economics: 2012 – 2015
- First Class Honours
- Academic awards in each year of my studies (top 5 performance), Karl Pearson Award for top grade in year 2

Hymers College: 2010 – 2012
- A*, A*, A*, A*, A* in A-levels: Mathematics, Further Mathematics, Chemistry, Physics, Economics

The Snaith School: 2005 – 2010
- GCSEs: 11A*s, 2 As (A* in A-level Mathematics, taken 2 years early)

Teaching

Class Tutor, Department of Statistics, University of Oxford: January 2020 – May 2020
- 4th year undergraduate / MSc Advanced Simulation Methods

Teaching Assistant, Balliol College, University of Oxford: October 2019 – Present
- Introductory Calculus, Multivariable Calculus, Statistics and Data Analysis

Technical Experience

Regular use: Python (including Tensorflow, Pytorch), R, SQL, Unix, git
Platforms: BlackRock Aladdin, Bloomberg, AWS

Interests

Windsurfing, Sailing, Horse Riding, Running, Rowing