

Joe Benton

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EDUCATION

Department of Statistics, University of Oxford <i>DPhil in Statistics (Modern Statistics and Statistical Machine Learning CDT)</i> First project: <i>Denoising Diffusion Models on Arbitrary State Spaces</i> , supervised by Arnaud Doucet, George Deligiannidis Second project: <i>Infinite-width limits of neural networks</i> , supervised by François Caron	2021 – Present
Trinity College, University of Cambridge <i>BA with MMath in Mathematics</i> Graduated with a Distinction (6th out of c. 250 in year) Thesis title: <i>Activated Random Walks</i> , supervised by Perla Sousi	2017 – 2021

WORK EXPERIENCE

Research Assistant <i>Center for Human-Compatible Artificial Intelligence, UC Berkeley</i> Built on the PAIRED algorithm for unsupervised environment design to incorporate human feedback with the aim of speeding up and simplifying the training process. Supervised by Michael Dennis.	Summer 2021
Research Assistant <i>DPMMS, University of Cambridge</i> Adapted methods from algebraic geometry for the calculation of characteristic numbers to produce more direct computations of intersection numbers on the projective plane and torus. Supervised by Dhruv Ranganathan.	Summer 2021
Research Intern <i>Charity Entrepreneurship</i> Collaborated to research and write two reports on potential global health and development interventions	Spring 2020
Quantitative Trading Intern <i>Jane Street Capital</i> Developed models in Python and Excel for predicting the price of depository receipts	Summer 2019
Software Engineering Intern <i>Metaswitch</i> Designed and built new features for their instant messaging servers' software	Summer 2018

AWARDS

Senior Scholarship, Trinity College For exceptional first year exam results, reawarded after second year	2018 – 2020
International Mathematics Olympiad Gold, placing 7th out of 615 competitors in 2017 Silver in 2014, 2015, 2016	2014 – 2017
International Olympiad in Informatics Gold, placing 6th out of 304 competitors in 2017 Silver in 2015 Bronze in 2016	2015 – 2017
Romanian Masters in Mathematics Three gold medals, the best record in the history of the competition	2015 – 2017

PROJECT EXPERIENCE

AGI Safety Fundamentals Programme Lead <i>Effective Altruism Oxford</i> Organised and facilitated the OxAI Safety Hub's AGI Safety Fundamentals programme for 30+ participants.	March 2022 – Present
National Coordinator <i>Raise: A Celebration of Giving</i> Co-founder and national coordinator for a Raise, a student charity initiative that has raised over £380,000 for the Against Malaria Foundation. As of 2022, helping to coordinate 200+ student volunteers in seven universities across the UK.	June 2020 – Present
Chapter Founder <i>One for the World</i> Founded and led the Cambridge Chapter of the One for the World initiative, raising £5,000 in annual pledged donations.	July 2020 – July 2021

PUBLICATIONS

A Continuous Time Framework for Discrete Denoising Models. Andrew Campbell, Joe Benton, Valentin De Bortoli, Tom Rainforth, George Deligiannidis, Arnaud Doucet. arXiv preprint, arXiv:2205.14987