

Stefan Clarke

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EDUCATION

2021-2025 **PhD, Operations Research and Financial Engineering**, Princeton University, New Jersey

2017-2021 **MMath in Mathematics and Statistics**, University of Oxford, St John's College

Bachelor's part (Prelims, Part A, Part B): **First Class Honors**

Master's Part: **First Class Honors. Winner of the Gibb's Prize for best Exam Performance.**

82% (Part B) (4th in Oxford Cohort), **75%** (Part A), **72%** (Prelims)

Relevant Courses Taken: *Statistical Machine Learning, Foundations of Statistical Inference, Applied Statistics, Computational Statistics, Applied Probability, Mathematical Models of Financial Derivatives; Probability, Measure and Martingales; Continuous Martingales and Stochastic Calculus, Information Theory, Statistics, Probability, Integration and Measure Theory, Algorithmic Foundations of Learning, Probability on Graphs and Lattices, Stochastic Differential Equations, Stochastic Analysis and PDEs, Limit theorems and Large Deviations in Probability, Theories of Deep Learning, Networks.*

Master's Thesis: *Asymptotics of the Minimum Particle of a Branching Brownian Motion with Prof. Julien Berestycki*

2010-2017 **The Nelson Thomlinson School**, Wigton, Cumbria

Mathematics, Further Mathematics, Chemistry, Biology, General Studies, A*A*A*A*A

EXPERIENCE

Jul 2020- Sep 2020 **G-Research, Summer Intern**, Quantitative Research, London

- 10-week long internship at G-Research. One of 16 interns globally. Used techniques in optimisation and dynamic programming to create different investment strategies using Python. Presented the final project to a panel of group heads.
- Participated in a group project on constrained trading strategy. Completed training in financial markets.

Jul 2019- Aug 2019 **Mathematical Institute, Machine Learning Research Intern**, University of Oxford

- Research project investigating neural processes to repair broken speech samples, and how different loss functions affect variance collapse in this context.
- Supervised by Dr. Vinayak Abrol

March 2019 **Software, Spring Intern**, Software Engineering, London

- 3-week long spring insight programme with the software engineering team. Trained using JavaScript, HTML, CSS and SQL to complete a group project which consisted of creating a database and management system for shops and libraries.

EXTRACURRICULAR ACTIVITIES

Jul 2017- present **St John's College Boat Club, Men's Vice Captain ('18-'19), President ('19-'20)**, University of Oxford

- Responsible for managing a team of around 50, purchasing boats and equipment, hiring staff and organising training schedules.

Jun 2020- present **The Invariants (Oxford Maths Society), Events Secretary**, University of Oxford

- Events Secretary of the mathematical society of Oxford University. Responsible for contacting sponsors to organise various events from workshops to networking and managing the logistics of existing Invariants Lectures.

2018- 2020 **OURCs, Webmaster**, University of Oxford

- Responsible for managing and updating the website that controls the University of Oxford Rowing System using Django.

2018- 2020 **St. John's Mathematics Society, Social Secretary**, University of Oxford

- Responsible for organising events within St. John's college mathematics.

AWARDS AND SCHOLARSHIPS

2021 **Oxford Mathematics and Statistics Gibbs Prize**

- For best overall exam score in Oxford University.

2018-2021 **Casberd Scholarship**, St John's College, University of Oxford (2018, 2019, 2020)

- For outstanding performance in end of year exams.

2019 **Special Research Grant**, St John's College, University of Oxford

- Grant from St John's College for doing research with the Mathematical Institute.

Competitions

- British Mathematical Olympiad:** distinction medal (2013), Qualified 4 times
- UKMT British Schools Competition:** 23rd in the country (2012), Cumbrian runners up (2015, 2016)
- British Young Enterprise:** first in three consecutive rounds, finalists (2016)

SEMINARS

February 2021 – **Limit Theorems for Random Walks** – A mathematics seminar delivered to the Oxford Mathematics Society

March 2021 – **Spitzer's Identity and Applications** – A mathematics seminar delivered to the St. John's Mathematics Society

COMPUTER SKILLS

Advanced: Python (Pytorch, Tensorflow)

Intermediate: R, Microsoft Office (Excel, Word, PowerPoint), Django

Basic: SQL, JavaScript, HTML, CSS

INTERESTS

Music – guitarist and pianist. Grade 8 guitar. Maryport and Whitehaven Amateur Theatre Group Guitarist 2016-2017