

DAN

EDUCATION

- PhD Candidate**, Centre for Doctoral Training in the Mathematics of Random Systems *2020 - 2024*
Imperial College London and University of Oxford
- Theoretical and numerical study of stochastic processes with a view towards spatiotemporal applications
 - Numerical optimization for machine learning
- MSci Mathematics**, Imperial College London *2016 - 2020*
- 1st, 2nd and 4th year honours: 85%, 88% and 85% (top 10%)
 - 3rd year abroad at Massachusetts Institute of Technology with GPA 4.7/5.0 *August 2018 - May 2019*

AWARDS & ACHIEVEMENTS

- Institute of Mathematics and its Applications Prize** for outstanding performance in the final year *2020*
- Dean's List** for academic excellence during all years at Imperial *2017, 2018, 2020*
- UROP Prize** for outstanding undergraduate research *2018*
- Gloucester Research Prize** awarded annually to up to 10 students per department *2018*
- Silver medals** on the national Romanian Mathematics Olympiad and Qualification to the Team Selection Tests for the International Mathematics Olympiad *2014, 2015*

TEACHING EXPERIENCE

- Private tutor**, over 750 hours *2021 - present*
- Worked with a diverse body of students from A-level or equivalent to university admissions, degree and Masters
 - Developed effective communication skills and the ability to quickly identify the high-reward areas of improvement
- Teaching assistant**, Imperial College London *2019 - present*
- Led undergraduate and graduate tutorials on Probability, Mathematical Finance, Statistics and Machine Learning and explained complex concepts in simple terms to match individual needs

OTHER WORK EXPERIENCE

- Machine Learning Intern**, SI Units Consulting, London *June - August 2019*
- Offered consultancy in ledger technology and feature extraction for Bitcoin fraud detection
 - Liaised with an interdisciplinary team to design and test indicators for the cryptocurrency market
- Machine Learning Intern**, Focaldata, London *September 2019*
- Aggregated survey data from multiple providers into a master database
 - Used Bayesian Multilevel Regression with Poststratification to understand public opinion towards public policy at constituency level

PUBLICATIONS

- Likelihood-based inference and forecasting for trawl processes: a stochastic optimization approach (working paper)
- Stability of Multi-Agent Learning: Convergence in Network Games with Many Players. *ICML workshop, 2023*
- Simulation methods and error analysis for trawl processes and ambit fields. *Mathematics and computers in simulation (to appear), 2023*

SKILLS AND INTERESTS

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| Programming | Python (proficient), Tensorflow, PyTorch, JAX (intermediate); R (intermediate) |
| Interests | Chess (club player), Piano, Fencing |
| Languages | Romanian (native), English (excellent), French (intermediate) |