



Cian Naik

Curriculum Vitae

A DPhil student in statistics and machine learning, with interests in Bayesian nonparametrics, network analysis, data compression and causal inference.

Education

- Oct 2017 – **DPhil Statistical Science (EPSRC and MRC Centre for Doctoral Training)**,
Present *University of Oxford*.
Supervised by Professor François Caron and Professor Judith Rousseau.
- Oct 2015 – **MSc Statistics, Imperial College London**, Distinction.
Sep 2016 Ranked 1st and awarded the Winton Capital Prize for Best Student.
- Thesis – “Robust Estimation and Approximate Bayesian Methods in Causal Inference Problems”, supervised by Professor Emma McCoy and Professor Daniel Graham. Awarded a score of 90%.
- Oct 2012 – **BA Mathematical Tripos, University of Cambridge**, First.
Jun 2015

Publications and Preprints

- 2021 **Sparse networks with core-periphery structure**, *Electronic Journal of Statistics*, 15(1), 1814–1868.
C. Naik, F. Caron, J. Rousseau.
- 2019 **Do speed cameras reduce road traffic collisions?**, *PLoS ONE*, 14(9): e0221267.
D.J. Graham, **C. Naik**, E.J. McCoy, H. Li.
- 2016 **Multiply robust dose-response estimation for multivalued causal inference problems**, *preprint*, arXiv:1611.02433.
C. Naik, E.J. McCoy, D.J. Graham.

Working Papers

- 2021 **Bayesian nonparametrics for sparse dynamic networks**.
C. Naik, F. Caron, J. Rousseau, Y.W. Teh, K. Palla.

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🌐 <http://csml.stats.ox.ac.uk/people/naik/>

- 2021 **Impact of geographic diversity on citation of collaborative research.**
C. Naik, C.R. Sugimoto, V. Larivière, C. Leng, W. Guo.
- 2021 **A recursive construction for Hilbert coresets.**
C. Naik, J. Rousseau, T. Campbell.

Talks and Poster Presentations

- Jun 2021 **2021 ISBA World Meeting, contributed session.**
Sparse networks with core-periphery structure
- Dec 2020 **CMStatistics, contributed session.**
Bayesian nonparametrics for sparse dynamic networks
- Jun 2019 **Bayesian Nonparametrics 12, poster.**
Sparse networks with core-periphery structure
- Mar 2019 **Workshop on Machine Learning, Computational Statistics and Applications, Amazon Development Centre, Germany, poster.**
Sparse networks with core-periphery structure

Experience

Internships

- Sep 2020 – **PhD Intern, Facebook, London.**
Nov 2020 Intern within the Core Data Science team. Created data pipelines and performed statistical analysis for problems in Community Integrity.
- Jan 2017 – **Quantitative Intern, Stratagem Technologies, London.**
May 2017 Quantitative Research Intern. Developed and extended a Bayesian updating model for the outcomes of football matches using in-play data.
- Oct 2016 – **Quantitative Intern, GMO, London.**
Dec 2016 Quantitative intern within the Global Equity Team. Created a data validation tool for large-scale fundamental accounting data for approximately 30,000 companies globally.
- Jul 2015 – **Summer Intern, Metaswitch Networks, Enfield.**
Sep 2015 Intern with the Perimeta Architecture Team. Designed and implemented code in Python for the automated orchestration of the Perimeta software upgrade process.

Teaching

- Oct 2019 – **Class Tutor, Department of Statistics, University of Oxford.**
Dec 2019 Foundations of Statistical Inference (3rd year course)
- July 2019 **Tutor, Department of Statistics, University of Oxford.**
Mock probability tutorials for a summer school aimed at encouraging applications from students from disadvantaged backgrounds.
- Oct 2018 – **Teaching Assistant, Department of Statistics, University of Oxford.**
Mar 2021
 - Foundations of Statistical Inference (3rd year course) - 2018/19
 - Advanced Simulation Methods (4th year/MSc course) - 2020/21

Awards

- 2016 Winton Capital Prize for Best Student, Imperial College London, Statistics MSc.
- 2015 Andrew Jennings Scholarship, Imperial College London.

2015 Jesus College Scholarship, University of Cambridge.

2012 British Maths Olympiad - Bronze Award in Round 1 and qualified for Round 2

Computer skills

Advanced Python, R, MATLAB, \LaTeX

Intermediate Hive, Presto, Spark, MongoDB, Dataswarm, Mercurial

Basic C++, Hack, PHP

Interests

Sport Hockey. Tennis. Squash.

Music Singing. Violin.

Volunteering Oxford Maths Festival - 2019, 2020 (Team Leader)