

# Andrew Connell

## Statistical Researcher



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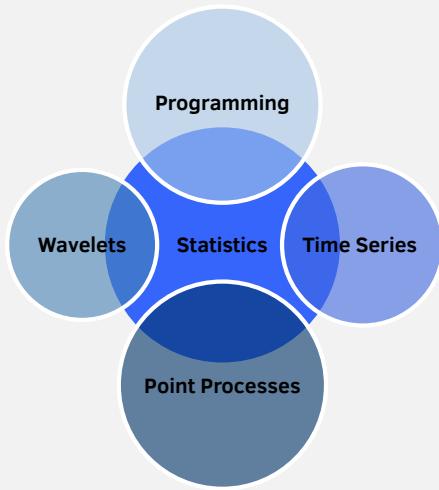


AndrewC1998



Huxley Building, SW7 2AZ

## Technical Skills



## Education

### BSc, Mathematics with Statistics

FIRST CLASS (HONS)

Lancaster University

2016 - 2019 | Lancaster, UK

### MSc, Statistics (Theory & Methods)

DISTINCTION

Imperial College London

2019 - 2020 | London, UK

### PhD, Mathematical Statistics

Supervisors: E. McCoy & E. Cohen

Imperial College London

2020 - Present | London, UK

## References

Prof. R Killick - Lancaster University

Prof. E McCoy - LSE

Dr. E Cohen - Imperial College

Dr. S Brzezicki - Imperial College

## Experience

Oct 2020 -  
Present

### Graduate Teaching Assistant - Imperial College London

Imperial

Leadership role as senior GTA with extensive experience across multiple departments, delivering lectures and designing materials for Statistics, Game Theory, & Statistical Learning courses as well as content creation for the MSc Statistics, MSc Machine Learning and Data Science, and Data Science Challenges.

June 2019 -  
Present

### Tutor & Educational Consultant

Elite Prep

Through my self-employed practice and work with Elite Prep, I provide one-to-one and small-group tutoring in mathematics, statistics, and computing for students following global curricula from secondary school through to postgraduate level and partner with institutions to design and teach courses delivering professional development workshops and training focused on statistical literacy and STEM upskilling.

Oct 2022 -  
Oct 2024

### Visiting Student - London School of Economics

LSE

Gained access to world-leading academics from both LSE & Imperial and conducted research under the guidance of my PhD co-supervisor.

May 2024 -  
July 2024

### Guest Lecturer & Teaching Assistant - Washington St Louis

CIEE

Co-teaching of Differential Equations for study abroad students at CIEE including creating & delivery of content: exams, coursework, & lectures.

Sep 2020 -  
Sep 2023

### PhD Statistics Representative - Imperial College London

Imperial

Advocate for PhD students addressing needs and welfare concerns by organising reading groups, socials, & events.

Sep 2019 -  
Sep 2020

### Post-Graduate Representative

Imperial

Supporting MSc students before & during COVID-19 pandemic remote learning.

March 2018 -  
June 2019

### Team Leader - Enactus Lancaster

Enactus

Project management of nine projects ensuring all projects were on schedule and well-resourced to positively impact beneficiaries through entrepreneurial action.

Sep 2016 -  
Sep 2019

### Mathematics Ambassador & Lead Representative

Lancaster University

Representative for students at faculty council meetings. Lead Representative in final year, chairing meetings and resolving student issues. Invited post-graduation to outline the benefits of a Mathematics degree to prospective students.

## Research

May 2018 -  
Aug 2018

### Google Summer of Code & R Project Developer

Google

Exact online multi-changepoint detection method for non-stationary datastreams. Worked with Prof. R Killick & Prof. D Matteson to develop a novel computational method for changepoint detection in an online setting.

May 2019 -  
Aug 2019

### Second Order Structure in the Changepoint Package

Added functionality to the changepoint package that detects changes in dependence using exact search methodology. The change in second order structure algorithms include the commonly used AR(p) structure & changes in variance & autocovariance through the Locally Stationary Wavelet model.

May 2020 -  
Sep 2020

### Imperial College London

Imperial

### Identifiability of Self-Exciting Point Processes

The thesis provided new work for deriving the Fisher Information, the negative moments & an exact identifiability condition for Hawkes Processes.

Oct 2020 -  
Present

### Imperial College London

Imperial

### Novel Theory and Methods for Hawkes Processes

Introduced new theory for point processes during PhD with projects including: Identifiability of Hawkes Processes, Absolute and General Trend Locally Stationary Wavelet Processes, Wavelet Estimation of Time-Varying Hawkes Processes, & Debiased Whittle Estimation for Binned Time-Varying Hawkes Processes.

## Other Skills & Information

Jan 2005 -  
present

### Musician & Actor

A keen musician with concert band experience. Instruments include piano and woodwind with ABRSM grades & music theory. Gold LAMDA award (distinction) in drama. Co-founded Imperial's Sea Shanty Choir for communal singing.

Oct 2017 -  
present

### Comedian & Broadcaster

Co-host of *The Atomic Fridge*, Bailrigg FM, interviewing academics on mathematics, physics, & statistics. Performer of stand-up comedy at venues around London.

Jan 2021 -  
Sep 2023

### Events Organiser

Organised & managed events for Sunflower Dance Collective, handling logistics, equipment, sound, & lighting; bar management including inventory, staffing, & customer service; liaised with acts; and oversaw photography for promotional content.

Jan 2020 -  
present

### Climber

Active member of the London climbing community, contributing to operations & events, with experience in bouldering, lead, & trad climbing. Developed a costing site for London Climbing Centres to improve efficiency.