

Andrew Connell

Statistical Researcher

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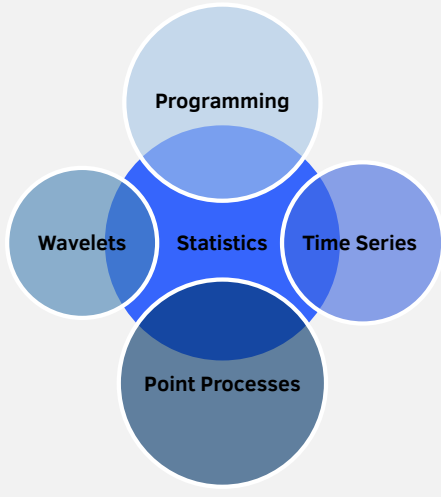
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 Huxley Building, SW7 2AZ

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 2022 - Present

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.
- 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 several 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.
- 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 Constraints, Wavelet Estimation of Time-Varying Hawkes Processes, & Debaised 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 Imperial College Mountaineering Club (ICMC) & 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.