

# Andrew Connell

Graduate Statistician

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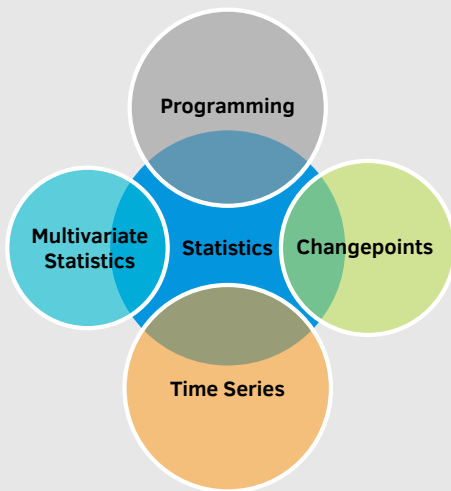
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AndrewC1998

## Technical Skills — Overview



### Programming

0 LOC —————> 50000 LOC

R • C •  $\text{\LaTeX}$

JavaScript • Java • C++ • SQL

HTML • MATLAB • Python

## Education —

### BSc., Mathematics with Statistics

FIRST CLASS (HONS)

Lancaster University

2016 - 2019 | Lancaster, UK

### MSc., Statistics (Theory and Methods)

Imperial College London

2019 - Present | London, UK

## References —

Dr. Rebecca Killick

r.killick@lancaster.ac.uk

Prof. David Matteson

matteson@cornell.edu

## Experience

March 2018 - **Team Leader - Enactus Lancaster**

Enactus

June 2019

- Enactus is an international non-profit organisation, lead by students, which develops entrepreneurial skills in order to lift people out of poverty.
- The Team Leader role has enabled me to develop my understanding of the many different aspects of running a business such as project management, communication skills and using resources effectively.
- Lead 80 students across nine projects, ensuring all projects were kept to schedule and beneficiaries were impacted through entrepreneurial action.
- Developed several social enterprises which can all be found on my website.

Oct 2017 -

June 2019

**Radio Presenter - The Atomic Fridge**

Bailrigg FM

- Host a weekly university radio show interviewing guest speakers such as professors, lecturers and Ph.D. students to discuss their areas of research.
- 'The Atomic Fridge' has won university acclaim.

Sep 2016 -

June 2019

**Mathematics Ambassador & Lead Representative** Lancaster University

- Throughout undergraduate degree, have represented students at the faculty council where any serious issues have been raised.
- Represent the department and university on Open Days.
- Present lectures and talks on student life at Lancaster, studying Maths and answer any subject specific questions the applicants may have.
- In my final year, I was elected Lead Representative. This involved chairing committee meetings and resolving undergraduate and postgraduate issues.

Jul 2017 -

Aug 2017

**Robotics Teacher**

Tamwood

- Prepared and delivered lessons, designed assessments and wrote reports on pupil progress and supported students studying away from home.
- Taught basic understanding of robotics and fundamentals of programming.
- Provided the students with the necessary materials and programming knowledge so they could design and build their own robots.

Nov 2016 -

Dec 2017

**Men's Welfare Officer**

Cartmel College

- Helped students adjust to university; providing guidance and counselling.
- Supported students during the year with any difficulties they encountered.

## Other Skills

Jan 2005 -

present

**Musician & Actor**

- Play the Piano and several woodwind instruments, holding many ABRSM grades across these instruments as well as music theory.
- Played in various concert bands at school, sixth form and university including Lancashire Youth Concert Band.
- Gold LAMDA award (distinction)

## Research

May 2018 -

Aug 2018

**Google Summer of Code & R Project Developer**

Google

**Thesis:** An exact online method for multiple changepoint detection for non-stationary data streams.

- Reached out to professional programmers and academics, Dr. R Killick and Professor D Matteson, and with their guidance developed a computational based research project.
- Researched and developed statistical methods for changepoint detection.

May 2019 -

Aug 2019

**Thesis:** Second Order Structure in the Changepoint Package.

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

## Publications

There are two papers set to be published in the coming months for the changepoint package and the changepoint.online package. Please contact me should you wish to view the unpublished papers. A link to the code for each project can be found by viewing my GitHub account.