

Nathan Cunningham

CONTACT INFORMATION

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RESEARCH INTERESTS

Cluster analysis, Monte Carlo methods, applied statistics, statistics for public policy

EDUCATION

University of Warwick

Ph.D. Candidate, OxWaSP (Oxford Warwick Statistics Programme), October 2015 (expected graduation date: 2019)

- Thesis Topic: “Particle Monte Carlo methods for clustering multiple datasets”
- Supervisors: Professor David Wild (University of Warwick) & Professor Jim Griffin (University of Kent)
- Modules: Machine learning, computational statistics, stochastic simulation, scalable methods and analysis of large complex data

University College Dublin

MSc, Statistics, first class honours degree, August 2012

- Dissertation Topic: “Model-based Clustering with Application to Fossil Pollen Spectra”
- Supervisor: Professor Andrew Parnell

BSc, Economics & Finance, first class honours degree, August 2011

HONOURS AND AWARDS

Miriam Hederman O’Brien Prize 2016

shortlisted for award recognising outstanding contribution to Irish fiscal policy for my involvement in a report examining the potential costs of implementing universal health insurance in Ireland.

Royal Statistical Society/Significance Magazine Young Statistical Writer award 2014

selected as a finalist for my article ‘Does Christmas really come earlier every year?’

SELECTED PUBLICATIONS

Journal Articles

- A. Brick, S. Smith, C. Normand, S. O’Hara, E. Droog, E. Tyrrell, N. Cunningham & B. Johnston. 2017. *Costs of formal and informal care in the last year of life for patients in receipt of specialist palliative care*. Journal of Palliative Medicine.
- S.J. Sinnott, A. Brick, R. Layte, N. Cunningham & M.J. Turner. 2016. *National Variation in Caesarean Section Rates: A Cross Sectional Study in Ireland* PLOS ONE.

Articles

- N. Cunningham. 2016. *Is Christmas really coming earlier? Maybe, but not as early as August*. Significance Magazine.
- N. Cunningham. 2016. *Lost in the crowd? A statistician explains how to find your friends at a music festival*. Significance Magazine.

Reports

- M.A. Wren, S. Connolly & N. Cunningham. 2015. *An examination of the potential costs of universal health insurance in Ireland*. ESRI Research Series.

PROFESSIONAL EXPERIENCE

University of Warwick, department of statistics, CV4 7AL, Coventry

Academic tutor

October 2016 - present

Currently working as an academic tutor throughout my PhD in the University of Warwick, giving tutorials in mathematical techniques, probability and guiding undergraduates in the use of statistical software. This involves guiding tutorial sessions, correcting assignments and providing feedback to students.

Economic and Social Research Institute Whitaker Square, Dublin 2, Republic of Ireland

Data Analyst

September 2012 - September 2015

Employed as a data analyst in the health research division of the Economic and Social Research Institute. This involved working with the national statistics on hospital admissions and births, preparing and disseminating data, and working on a number of research projects to inform government policy. I was involved in fitting classification models to predict deaths during a hospital admission in order to compare mortality ratios across hospitals. As the intended audience of the research was rarely fellow statisticians this experience has helped me develop skills in presenting results of statistical analyses to lay readers.

I also worked on the sports & social committee for the duration, helping in the regular planning of social events.

University College Dublin Belfield, Dublin 4, Republic of Ireland

Academic tutor

September 2011 - May 2012

Worked as an academic tutor throughout my Master's degree in University College Dublin, helping groups of first year students become familiar with statistical packages.

SOFTWARE
PROFICIENCY

- Statistical Packages: R, Matlab, SPSS, Stata, some experience with Python, C, CUDA
- Applications: L^AT_EX, Microsoft Word, Microsoft Excel

OTHER INTERESTS

I enjoy writing informal articles exploring the applications of statistics in the real world and have had some of these published by Significance Magazine and subsequently featured in a number of media outlets; I discussed my article on how to find your friends at music festivals with Tim Harford for the More or Less podcast and on BBC's Midlands Today. My article on Christmas coming earlier featured broadly across UK and Ireland newspapers and I discussed my findings in a number of radio interviews and at the annual conference of the Royal Statistical Society. An article I wrote for my personal blog, 'i before e except after...w?' was featured in the Washington Post.

Other than statistics I enjoy playing music. I have been playing guitar and traditional Irish fiddle since my early teens and have done live performances on a number of occasions.