

Researching and implementing various statistical methods for use within eCommerce insights and analytics.

Lecturing an online undergraduate module in the School of Mathematics and Statistics titled ‘Practical Statistics’.

Researching text classification methods for use in e-commerce analytics.

Tutored undergraduate and postgraduate students over a broad range of courses including probability theory, actuarial statistics, Bayesian analysis, data programming and multivariate analysis.

Graded undergraduate and postgraduate assignments in addition to final examinations.

Undertook a three month study to create an algorithm to automatically detect spam searches on AOL's search engine.

Maintained and installed Coin and Credit Card operated Internet terminals throughout Ireland. Constructed new terminals also.

Education

2011 - 2015 **PhD. in Computational Statistics**

University College Dublin, Belfield, Dublin 4.

Title: 'Overcoming Intractable Likelihoods' (Supervisor: Prof. Nial Friel).

My research focused on improving simulation methods for estimating intractable likelihoods. The methods are applicable in areas such as spatial statistics and social network analysis.

2010 - 2011 **M.Sc. in Statistics (First Class Honours)**

University College Dublin, Belfield, Dublin 4.

Minor thesis: 'Supervised Probabilistic Classification' (Supervisor: Prof. Nial Friel).

Courses covered: Multivariate Analysis, Mathematical Statistics, Bayesian Analysis, Time Series Analysis, Applied Statistical Modelling, Data Programming, Monte Carlo Inference and Stochastic Models.

2006 - 2010 **B.Sc. Degree in Mathematical Science (Upper Second Class Honours)**

University College Dublin, Belfield, Dublin 4.

Courses included:

Statistics - Probability Distributions, Statistical Inference I, Biostatistics, Statistical Inference II, Survey Sampling, Linear Models I, Statistics & Visualisation, Linear Models II, Data Analysis I, Actuarial Statistics I, Nonparametric Statistics, Design of Experiments, Survival Analysis, Categorical Data Analysis, Data Analysis II and Linear Models with Complex Structures.

Mathematics - Discrete Mathematics, Financial Mathematics, Vector Spaces and Coding, Calculus of Several Variables, Introduction to Analysis, Polynomial Rings/Group Theory, Functions of One Complex Variable, Differential Geometry and Advanced Linear Algebra.

Mathematical Physics - Analytical & Quantum Mechanics, Vector Calculus, Introduction to Fluids & Waves, Partial Differential Equations and Dynamical Systems.

Skills Acquired

Networking, presenting, report writing and interpersonal skills: Developed through attending and presenting at conferences and workshops, writing my masters and PhD theses, and preparing papers for publication.

Computer skills: 9 years programming experience in the statistical language R (including the Shiny library), programming in C and C++. Extensive knowledge of L^AT_EX, Microsoft Word, Excel and PowerPoint. Working knowledge in SQL, HTML, Python, SAS, SPSS, Minitab and Genstat.

Teamwork and communication skills: Developed through participation in group projects during my undergraduate degree and also through playing rugby.

Self-motivation and excellent work ethic: Working independently to overcome problems, manage large workload and plan nature of work.

Awards

Graduate Statistician (GradStat), professional membership of the Royal Statistical Society.

Interests and activities

I enjoy all kinds of sport. I am particularly interested in rugby and currently play with Bective Rangers Football Club. I have also played at school level and represented my school in a Leinster Development Cup final. In addition, I enjoy playing golf and have represented Kilkenny Golf Club at Junior Level for which I hold two Leinster medals. Further interests include soccer, tag rugby and socialising with friends.