Dr Aidan Boland

SENIOR DATA SCIENTIST

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Data scientist with 4 years industry experience, and 5 years research experience.

Employment

Edge By Ascential (formerly Clavis Insight)
Dublin, Ireland

SENIOR DATA SCIENTIST — *2018 - Present*

DATA SCIENTIST — *2016 - 2018*

- Researching and implementing various statistical methods for use within ecommerce insights and analytics.
- Developed API in R which uses supervised classification to remove manual data input and QA testing.
- Created suite of UI's tailored for specific tasks within the organisation, allowing users to interactively manage data and apply machine learning techniques to simplify problems.
- Created end to end process including GUI's to allow users easily perform intelligent text matching.
- Supervised and delivered statistical analysis projects for clients.
- Co-supervised Trinity College Dublin final year students projects in the areas of machine learning and data analytics.

University College Dublin
Belfield, Dublin 4.

LECTURER - SCHOOL OF MATHEMATICS AND STATISTICS — *Autumn 2019*

- Prepared and recorded lectures for an online postgraduate module titled 'Intro to Data Analytics'.
- Managed all continuous assessment and the final examination.

LECTURER - LOCHLANN QUINN SCHOOL OF BUSINESS — *Spring 2019*

- Delivered lectures for an undergraduate module titled 'Data Analysis for Decision Makers'.
- Helped to prepare, coordinate, and correct both the mid semester project and the final examination.

LECTURER - SCHOOL OF MATHEMATICS AND STATISTICS — *Spring 2016*

- Lectured an online undergraduate module titled 'Practical Statistics'.
- Coordinated tutors and teaching assistants for computer labs in Minitab and R.

Insight Centre for Data Analytics & Clavis Insight
Dublin , Ireland.

POSTDOCTORAL RESEARCHER — *2015 - 2016*

- Researched text classification methods for use in ecommerce analytics.
- Involved research into both supervised and unsupervised text classification methods with the aim of solving an industry specific problem.

University College Dublin
Belfield, Dublin 4.

TUTOR — *2010 - 2015*

- Tutored undergraduate and postgraduate students over a broad range of courses including probability theory, actuarial statistics, Bayesian analysis, data programming and multivariate analysis.
- Demonstrated and tutored computer practical classes (SAS, R and Minitab) of up to fifty students for both undergraduates and postgraduates.
- Graded undergraduate and postgraduate assignments in addition to final examinations.
- Created screencasts and administered discussion boards for an online module: 'Data programming with R'.

AOL
Heuston South Quarter, Dublin 8.

STATISTICAL CONSULTANT — *Summer 2012*

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

Education

University College Dublin

PhD in Computational Statistics *2011 - 2015*

- Title: 'Overcoming Intractable Likelihoods' (Supervisor: Prof. Nial Friel).
- Improved simulation methods for estimating intractable likelihoods in area's such as spatial statistics and social network analysis.

University College Dublin

MSc in Statistics (First Class Honours) *2010 - 2011*

- 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.

University College Dublin

BSc in Mathematical Science (Upper Second Class Honours) *2006 - 2011*

Technical Skills

Programming

- 10 years experience with R:
    - Code in daily use within a production environment.
    - Suite of UI applications developed using the Shiny library.
- Proficient in: Git, SQL (Postgres, MySQL), LaTeX, Docker.
- Familiar with: AWS, command line tools, Python, HTML, C, SAS, SPSS.

Methodologies

- In depth knowledge of many statistical and machine learning techniques, including but not limited to: regression, MCMC, time series, principal component analysis, Bayesian inference, non-parametric methods, logistic regression/max ent, random forests, neural networks, LDA, k-means, nearest neighbour classifiers.

Presentations

Invited

2019 **Data Scientist or Statistician?** Young-ISA meeting (Young section of the Irish Statistical Association)

Selected Others

2018 **An R Case Study: From Research to Production**, CASI 2018 (Conference on Applied Statistics in Ireland)
2017 **Using R to automate the classification of e-commerce products**, EARL Boston (Enterprise Applications of the R Language)
2015 **Efficient MCMC for Gibbs Random Fields using pre-computation**, Scalable Monte Carlo workshop at NIPS (Neural Information Processing Systems)

Publications

2018 **Boland, A.**, Maire, F., Friel, N., **Efficient MCMC for Gibbs Random Fields using pre-computation** (*Electronic Journal of Statistics*)
2014 Alquier, P., Friel, N., Everitt, R. and **Boland, A.**, **Noisy Monte Carlo: convergence of Markov chains with approximate transitions kernels** (*Statistics and Computing*)

Awards

2019 Shiny Contest - 'Honorable Mention' for building an Shiny app which displays real time public transport info for Dublin.
2016 Awarded Graduate Statistician (GradStat) status by The Royal Statistical Society.

Interests and Activities

I enjoy all kinds of sport. I am particularly interested in rugby, gaelic games, and golf. I played rugby until 2018, and I continue to play golf. I also enjoy exploring interesting datasets, developing R packages, and creating Shiny apps.