
BRIAN O'HALLORAN, PH.D.



BRIAN AT PLAYINGWITHDUST.ORG



+353 83 4428952



<https://www.linkedin.com/in/brian-o-halloran-6540097>

PERSONAL WEBSITE:

[HTTP://PLAYINGWITHDUST.ORG/](http://playingwithdust.org/)

OBJECTIVE

I am seeking a lead/senior data scientist role, in which I can continue to leverage and expand upon the quantitative, analytical and management skills that I have gained in over a decade plus of working in a variety of commercial environments and prior to that, in academia.

PROFESSIONAL EXPERIENCE

LEAD DATA SCIENTIST, LIBERTY INFORMATION TECHNOLOGY 2019 – 2020

First data science hire within the company, led data science team.

*Mar 2019-May 2020: Worked on **text classification** project to identify over-billed legal invoices (Python, keras, tensorflow)*

June 2019 – Sept 2019: Designed and delivered introductory data science course for LIT employees.

DATA SCIENTIST/LEAD DATA SCIENTIST, TELEGRAPH MEDIA GROUP 2017 – 2019

*Jan 2017 - Mar 2017: Worked on **automation of marketing reports** (Python, SQL, Google BigQuery, Google Compute Engine, Tableau)*

*Apr 2017 - May 2017: Delivered **probabilistic seat prediction model** (in R, with Tableau visuals) for 2017 UK General Election, as part of the Telegraph General Election coverage. Ad hoc project, after being approached by the Data Journalism team. Participated in the Election Night coverage at the Telegraph, providing seat forecasts for online publication during the night. Produced election predictions in a private capacity for the 2019 UK General Election.*

*May 2017 – Oct 2017: Conducted R&D program for **NLP project to classify Telegraph content**, using an internally devised topic schema that better fit our content versus those from third-party providers. Used Python, Keras and Tensorflow to construct deep learning models (convolutional neural networks), these were then deployed on Google Machine Learning Engine as an API and used to categorise newly generated content.*

*Oct 2017 – Feb 2019: Worked as part of the “Newsroom Of The Future” project with the internal Architecture team. Work focused on **providing content and context-based recommendations** for journalists as they are generating new content in our bespoke Authoring tool.*

TECHNICAL EXPERTISE

Languages: Python, R, and SQL

Deep Learning: Keras, Tensorflow

NLP frameworks: gensim, spaCy

Cloud:

- **AWS:** SageMaker
- **Google Cloud:** ML Engine, BigQuery, Google NLP API
- **Azure:** Azure Machine Learning

Visualisation: Tableau, Shiny, Plotly, ggplot, matplotlib/seaborn

I work in an **agile data science framework** (JIRA, Kanban, standups), and I am an advocate of **reproducible research** (GitHub, Markdown, Jupyter notebooks, Shiny).

AREAS OF FOCUS

Natural Language Processing

(NLP): text classification, recommendation engines, topic modeling, entity extraction, document similarity

Unsupervised Learning: clustering, t-SNE, PCA

Classification

Regression

Mar 2018 – Feb 2019: Worked with the Customer team at The Telegraph, led R&D for developing **recommendation systems** to be deployed as part of the “My Telegraph” personalization initiative.

LEAD INSTRUCTOR, GENERAL ASSEMBLY

2016–2018

Instructor for the ‘Introduction To Data Science’ course.

DATA SCIENTIST, EFINANCIALCAREERS

2015-2017

First data science hire within the company, led data science team.

Jan 2015 - May 2015: Worked with our analyst team to improve our data reporting capabilities, both for internal and external client consumption, leading to the adoption of Tableau and R/Shiny within the firm.

Jun 2015- Mar 2016: worked with the development team to introduce a **comprehensive web event tracking system** across our domain. We then used user segmentation (clustering, association rules, visualisation) to explore how users are using our services, and what they are likely to do next, as part of planning for future sales and marketing strategies.

Apr 2016 - Jan 2017: lead the **NLP classification** R&D algorithms for use on our extensive job and CV databases, using R and Python, and doing this at scale. Worked with the product team to define the classification schema (topic modeling), built multiclass classification prototypes for demonstration to management and other stakeholders, and finally, worked with the development team to put it into a Python production environment.

POSTDOCTORAL SCHOLAR, ASTOPHYSICS GROUP, IMPERIAL COLLEGE LONDON

2008 – 2014

- Post-doctoral scholar. Worked as team member/manager within the European Space Agency Herschel Space Telescope project, as part of the SPIRE instrument team.

EDUCATION

University College Dublin, Ireland

- *Ph.D. in Experimental Physics, 2003*

NUI Maynooth, Ireland

- *B.Sc. (Hons) in Experimental Physics and Mathematics: grade 2.2, 1998.*
-

POST-DOCTORAL SCHOLAR, GEORGE MASON UNIVERSITY, FAIRFAX, VA, USA.

2004 – 2008

Post-doctoral astrophysics scholar/term lecturer.

POST-DOCTORAL SCHOLAR, DUNSINK OBSERVATORY, DUBLIN INSTITUTE FOR ADVANCED STUDIES

2002 – 2004

Post-doctoral astrophysics scholar/term lecturer.

OTHER

I am an Irish/EU citizen. References are available on request.