Cillian Berragan

Personal Details cjberragan@gmail.com

07787796620

cjber.github.io/about

cjber.github.io

github.com/cjber

Key Skills

R: **R Projects**

- Data Analysis, Preprocessing, Statistics; `tidyverse` packages.
- Data Visualisation; `ggplot2, sf` packages, including spatial data.
- R Markdown Notebooks; Reporting results in a readable format.

Python: **Python Projects**

- Deep learning; `spaCy, keras` packages, familiar with deep learning pipelines.
- Data Analysis; `sklearn, pandas, numpy, geopandas` packages.
- Data Visualisation; `matplotlib, seaborn` packages.
- Object Orientated Programming.

SQL:

- Database querying and relational algebra.
- Database construction.

QGIS & ArcGIS:

- Client ready visualisations.
- Survey map produced for the Environment Agency using QGIS.
- ArcMap Used professionally at TEP.

Additional Skills: Regular Expressions, NLP, LaTeX, R Markdown, Unix/Linux, Vim

Written work:

- Academic and professional reports, all at distinction standard during MSc.
- One written assessment during my MSc was awarded the highest grade in that module since the university program began (98%).
- Primarily use the Linux operating system with R Markdown or LaTeX for written work in the Neovim text editor.
- Touch type at 80+ wpm.

Education

2019 - present *PhD Data Analytics and Society*: **University of Liverpool**

> *Improving the Geolocation of Emergency Service Response through Big Data*

Advanced NLP with spaCy, stanza python packages. Keras implemented neural networks, pretrained models and end to end pipelines.

2018 - 2019 *MSc Geographic Data Science* (Distinction, 82%): **University of Liverpool**

> **Key Modules:** *Geographic Data Science, Social Survey Analysis, Database and Information Systems, Web Mapping and Analysis*

I utilised advanced techniques for geospatial data analysis in both R and Python, as well as worked with the relational database management system MySQL during this degree. All assessments as part of this degree were awarded a distinction.

Dissertation: *Utilising Supervised Parametric Classification to Assess the Quality of the UK Rural Road Network using Aerial LiDAR Data.* (85%)

2014 - 2017 *BSc (Hons) Coastal Marine Biology* (First-Class, 74%): **University of Hull**

> **Key Modules:** *Independent Research Project, Geographic Information Systems, Environmental Impact Assessment*

While this degree had a primary focus on coastal marine ecology it allowed me to develop a keen interest in statistical analysis, in particular through the use of the R software. I utilised R heavily in my undergraduate dissertation for which I received the prize for 'Best Dissertation' in my department.

Employment

2018 *Graduate Ecologist*: **TEP - The Environment Partnership**

Daily tasks involved interacting with clients both over the phone and in person on site, preparing quotations for new ecological work and subsequently managing jobs that were accepted by clients. I worked with the ArcGIS software package to produce maps for professional use.

Aditional Interests

I am interested in using R Markdown and LaTeX to produce well formatted assessments for University and have produced an R Package containing various templates, hosted on my personal GitHub page. I am also passionate about contributing towards the open source programs I use and aim to assist as much as I can.

Updated: April 13, 2020