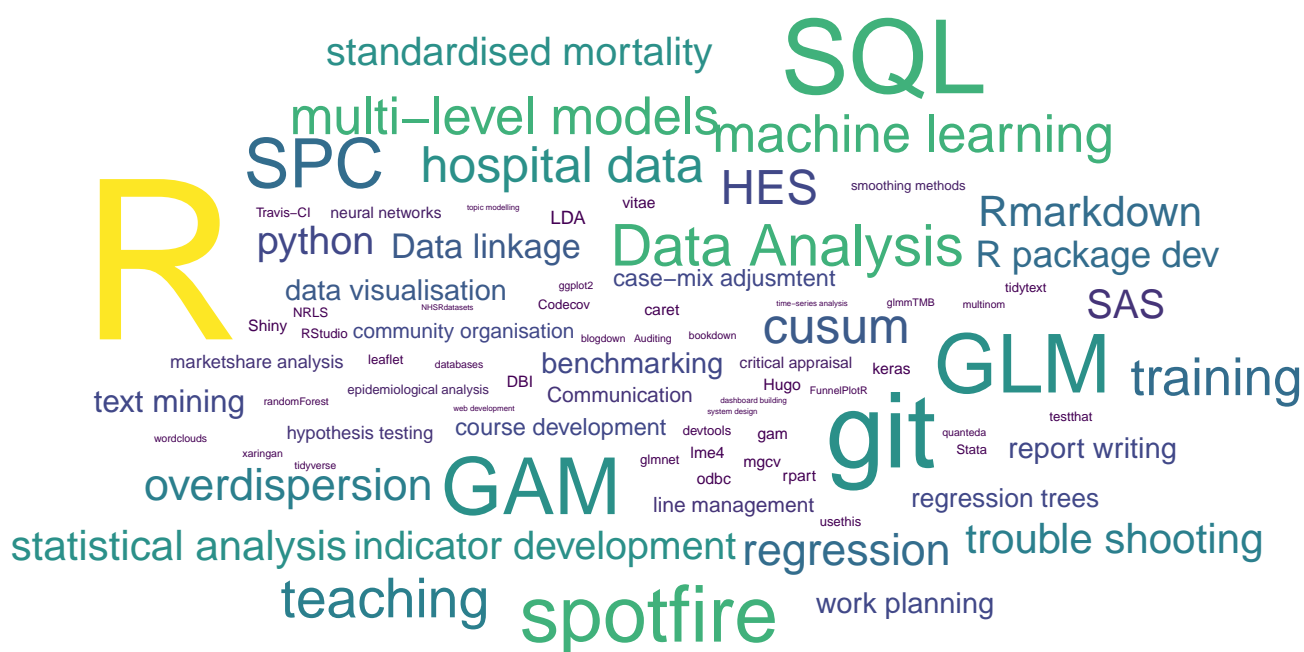# Christopher Mainey
Intelligence Analyst

**Curriculum Vitae**
October 2019

📍 Healthcare Evaluation Data (HED), Univesity Hospitals Birmingham NHS Foundation Trust
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I am an NHS Data Scientist/Statistician/Analyst in Health Informatics. I am a member of the Healthcare Evaluation Data (HED) team at University Hospitals Birmingham NHS Foundation Trust (UHB). My work focuses on modelling National Health Service (NHS) data, primarily using the national Hospital Episode Statistics (HES). I work primarily in R and SQL Server, and have experience with various statistical modelling and machine learning techniques. I have recently subitted my PhD thesis, focused on modelling methods for NHS incident reporting data, at UCL.

I advise and train hospitals, commissioners, regulators and the private sector on using data to manage hospitals, monitor mortality, performance and quality. I have a passion for using information effectively to influence policy and impact people's health and improve their hospital care. I am an experienced trainer, presenter and post-grad teacher. I have build and release several R package, and keen contributor to the NHS-R Community. I leads a local R usergroup at UHB, and run a programme of R trainig courses for HED.

## Key skills



## Education

| | | |
|---|---|---|
| 2014-19 | **PhD Apllied Statistics and Machine Learning** <br> London, UK | UCL |
| 2014-14 | **PgCert. Public Health** <br> Birmingham, UK | University of Birmingham |
| 2009 | **CIPD Certificate in Training Practise** <br> Coventry, UK | CIPD/City College Coventry |
| 2002-06 | **BSc Microbiology with Industrial Experience** <br> Manchester, UK | University of Manchester |

## Employment History

| | | |
|---|---|---|
| 2012 - NA | **Intelligence Analyst** | |
| | University Hospitals Birmingham NHS Foundation Trust | |
| 2011 - 2012 | **Informatics Analyst** | |
| | University Hospitals Birmingham NHS Foundation Trust | |
| 2010 - 2011 | **Cancer Informatics Analyst** | |
| | Arden Cancer Network | |
| 2009 - 2010 | **Information Officer** | |
| | West Midlands Cancer Intelligence Unit | |

## Selected Talks, presentations, and teaching experience

| | | |
|---|---|---|
| Talk | **Implementing R use in an NHS Informatics service** | 2019 |
| | Enterprise Applications of the R Language (EARL) | |
| Talk | **CUSUMs and Funnel Plots for reporting standardised mortality** | 2019 |
| | Royal Statistical Society Conference | |
| Course | **Introduction to R: data manipulation, visualisation, and statistical analysis** | 2019 |
| | NHS Gloucestershire | |
| Talk | **Statistical and Machine Learning methods for NHS Incident data** | 2019 |
| | The Health Foundation | |
| Talk | **Dealing with noisy count data: strategies for tackling over-dispersion, using R** | 2018 |
| | UCL PCPH Methodology Meeting | |
| Workshop | **Introduction to Statistical Process Control** | 2018 |
| | UHB Internal | |
| Workshop | **Introduction to Statistics** | 2018 |
| | UHB Internal | |
| Lecture | **Standaridsed Mortality Ratios** | -4 |
| | Various NHS Trusts | |
| Seminars | **Use of Evidence (MBChMB)** | -2 |
| | UCL Medical School | |
| Seminars | **Statistical Methods (MSc Data Science for Health)** | -2 |
| | UCL Farr Institute | |

## Publications
## Software

| | | |
|---|---|---|
| FunnelPlotR | **Funnel Plots for Indirectly Standardised Ratios with overdispersion adjustment** | |
| | 2019 | |
| NHSRdatasets | **NHS and Healthcare Related Data for Education and Training** | |
| | 2019 | |