Christopher Mainey

Intelligence Analyst

Curriculum Vitae
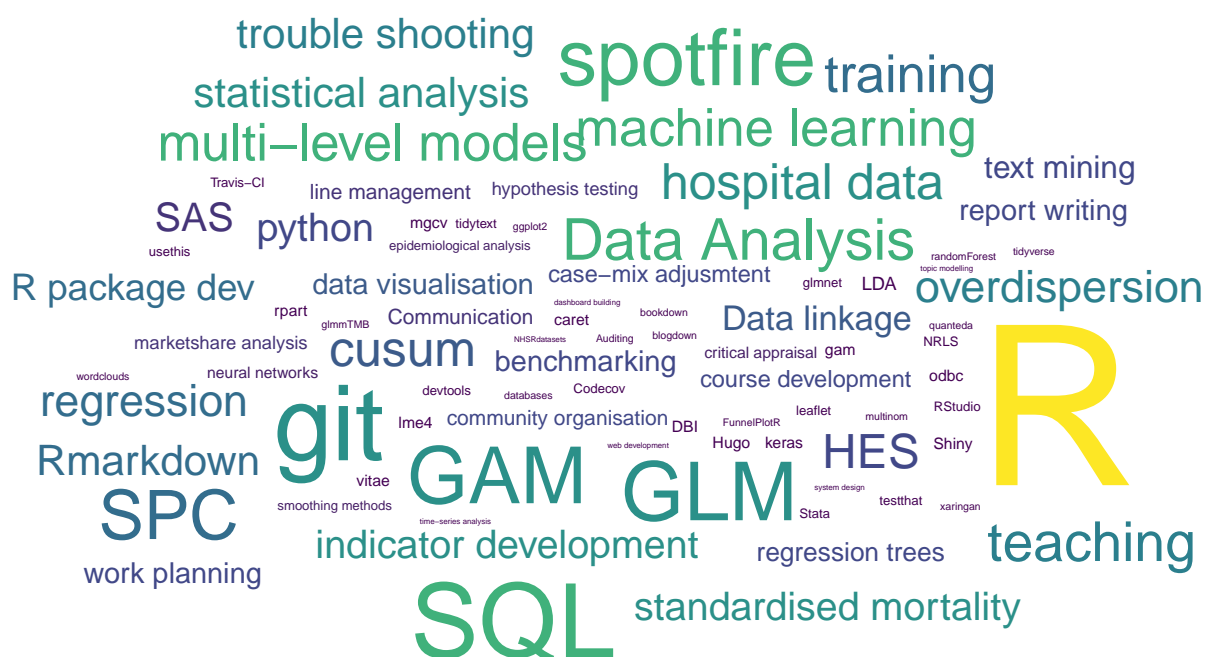October 2019

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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** London, UK	UCL
2014-14	**PgCert. Public Health** Birmingham, UK	University of Birmingham
2009	**CIPD Certificate in Training Practise** Coventry, UK	CIPD/City College Coventry
2002-06	**BSc Microbiology with Industrial Experience** 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

EARL	**Talk**
	Implementing R use in an NHS Informatics service
RSS Conference	**Talk**
	CUSUMs and Funnel Plots for reporting standardised mortality
NHS Gloucestershire	**Course**
	Introduction to R: data manipulation, visualisation, and statistical analysis
Health Foundation	**Talk**
	Statistical and Machine Learning methods for NHS Incident data
UCL PCPH Methodology Meeting	**Talk**
	Dealing with noisy count data: strategies for tackling over-dispersion, using R
UHB Internal	**Workshop**
	Introduction to Staistical Process Control
UHB Internal	**Workshop**
	Introduction to Staitstics
Various NHS Trusts	**Lecture**
	Standaridsed Mortality Ratios

Publications
Software

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