Dr. Michael Andrew Barrowman, PhD
Data Scientist

Contact

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LinkedIn

Education

PhD, 2016 - 2022
University of Manchester

Mathematics MSci, 2009 - 2013
University of Lancaster

Skills

Coding
Python, R, SQL, C++, DAX, Typescript, React, SAS, bash, cmd, VBA

Tools
VSCode, AWS, Copilot, RStudio, PowerBI, Jupyter, Excel, git

Data Visualisation/Presentation
RShiny, plotly, ggplot, matplotlib, LaTeX, RMarkdown

Modelling
Model validation, Linear regression, Logistic regression, Survival analysis, Multi-state models, Multinomial regression, Multi-arm bandits, Machine learning, Natural Language Processing,

Experience

Data Analyst & Scientist, EvoSoft — **Nov 2022 - Present**
- *Constructed Data Pipelines using AWS Lambda, S3 and Athena*
- *Built Cloud Infrastructure using AWS Cloudformation*
- *Created APIs to channel data to PowerBI under a servless framework*
- *Designed an AWS Amplify Dashboard using React.ts for direct data access*
- *Developed several statistical & business models for customer classification*

Compliance Manager, The Very Group — **Feb 2022 - Nov 2022**
- *Analysed financial and customer data using Teradata SQL, SAS and DAX*
- *Performed second-line testing and auditing of company processes*
- *Validated models from methodological and governance perspective*
- *Extracted compliance monitoring metrics and KPI from customer database*
- *Designed and maintained a PowerBI dashboard to display key business metrics*
- *Managed Alation data catalog as a subject matter expert within compliance team*

Data Scientist, Mirador Analytics — **Jan 2021 - Dec 2021**
- *Analysed health insurance and medical data using R and python*
- *Utilised US census data via multiple APIs to analyse demographic data*
- *Reported on HIPAA compliance within large data samples*
- *Maintained internal R package, including documentation and testing*

Maths, Stats & IT Tutor, LJMU — **Dec 2019 - Dec 2020**
- *Conducted lecture series' on learning R for non-statistics students*
- *Taught additional courses in SPSS, Word, Excel and nVivo*
- *Supported undergraduate and postgraduate students with projects and homework*

PhD Candidate, University of Manchester — **Oct 2016 - Apr 2022**
- *Analysed medical data using R and C++*
- *Researched effects and outcomes related to CKD within the current literature*
- *Developed and validated models predicting outcomes using multi-state models*
- *Improved current understanding of multi-state models extending survival analysis*
- *Designed and implemented methodology for improving model validation*
- *Created an RShiny app to predict patient outcomes*

Research Assistant, University of Manchester — **Nov 2015 - Sep 2016**
- *Analysed medical data using R and SAS*
- *Produced methodological improvements to pragmatic trial literature*

Data Analyst, AQA — **May 2015 - Sep 2015**
- *Analysed educational exam data using Excel and VBA*
- *Modelled result progression from examiner rate of marking*
- *Implemented grade boundaries based on bayesian statistical inference*
- *Coordinated with wide variety of teams to disseminate information*

Assistant Statistician, University of Manchester — **Aug 2014 - Apr 2015**
- *Analysed medical data using R, Stata and Excel*
- *Produced standardised datasets for pharmaceutical client*
- *Composed standard operating procedure documents for internal processes*
- *Designed probabilistic models for fuzzy data merging of EHR and eCRF data*