Dr. Michael Andrew Barrowman, PhD
Data Scientist

Contact

Newton-Le-Willows, Merseyside
myko101ab@gmail.com
+44 7720 399 856
MichaelBarrowman.co.uk
LinkedIn

Education

PhD, 2016 - 2022
University of Manchester

Mathematics MSci, 2009 - 2013
University of Lancaster

Skills

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

Tools
VSCode, AWS, Copilot, RStudio, Github (Actions), 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
- Developed several statistical & business models to optimise customer journey
- Constructed Cloud Data Pipelines within AWS
- Built Cloud Infrastructure using AWS Cloudformation and Typescript CDK
- Created secure APIs to act as model interfaces
- Designed an AWS Amplify Dashboard using React.TS for direct data access

Compliance Manager, The Very Group — Jan 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 - Jan 2022
- 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