BENJAMEN SIMON

Data Scientist, PhD

Want to see what I can do? Check out my portfolio.

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Languages & Tools: `Python` | `R (R Studio)` | `Julia` | `SQL` | `git` | `GitHub` | `AWS` | `LaTeX` | `Jupyter Notebooks` | `Markdown`

Technical Skills: **Exploratory Data Analysis** | **Regression** (Linear, Multiple-Linear, Polynomial, Logistic, GLM) | **Data Visualisation** | **Hypothesis Testing** (T-tests, A/B tests, ANOVA) | **Data Pipeline** (Cleaning, Wrangling, Modelling, Visualisation, Interpretation) | **Simulation** | **Bayesian Statistics** | **Markov chain Monte Carlo** | **Parametric Modelling** | **Project Management**

EXPERIENCE

Data Lead — Dec 2022 – Present
Commercialisation of Research from Social Sciences (CRoSS)
- Commercialising research ideas into impact driven businesses for the good of community.
- Developing a data centric approach to increase the profitability, sustainability, and impact of these growing businesses.

Data Science Consultancy — Dec 2022 – Present
Freelance
- Derived actionable insights using event-driven models to simulate customers moving through a multi-centre system.

Data Scientist — Jan 2022 – Apr 2022
UK Health Security Agency
- Saved 15 hours of work each week and increased reliability by redeveloping and improving a key model of COVID-19.
- Predicted vital quantities such as R0, expected cases, and expected deaths each week to inform national policy.
- Led meetings with external stakeholders leading to the on-boarding of two new models to the ensemble methodology.
- Created an environment of openness and growth by spearheading a workshop to allow people to discuss their challenges.
- Gained experience with docker, command line, git, version control, cloud computing, JIRA, Confluence, Sagemaker, AGILE, teamwork, project ownership, time management, and leadership.

Graduate Teaching Assistant — Oct 2018 – Jun 2022
Lancaster University
- Led workshops and labs, supported students, and gave feedback for coursework and tests.
- Helped non-technical students to understand technical concepts through intuitive explanations.

EDUCATION

Statistics PhD | Lancaster University — Oct 2018 – Present
- Solving complex large-scale big data modelling problems using known methods or developing new methods and tools as needed.

Statistics MSc | Lancaster University | Distinction (80%) — Oct 2017 – Oct 2018
- Relevant modules: Statistics in Practice, Likelihood Inference, Bayesian Inference, Generalised Linear Models, Computationally Intensive Methods, Principles of Epidemiology Environmental Epidemiology, Clinical Trials, Dissertation: Approximate Bayesian Computation.

Mathematics BSc | University of York | First with Distinction (85%) — Oct 2014 – July 2017
- Relevant modules: Statistics I & II, Bayesian Statistics, Applied Probability, Linear Algebra, Multivariate Analysis, Statistical Pattern Recognition, Survival Analysis, Stochastic Processes, Time Series, Dissertation: Simulation study of super-spreading.

PROJECTS & LEADERSHIP

Data Science Projects — Oct 2017 – Present
- Comparing two treatments using an adjusted analysis (A/B testing, ANCOVA)
- Predicting hospital readmission for high-risk infants (Classification, Logistic Regression)
- Spatial analysis of cases of infections (EDA, K-function analysis, Intensity estimation, Poisson generalised additive models)
- Bayesian ridge regression: An overview and comparison to classical regression
- Experiment design

President, Teacher, and Community Leader — Oct 2018 – Present
Lancaster University Swing Dance
- Ran and organised everything from weekly lessons to national 3-day events. Taught classes and trained volunteers.
- Increased membership 100%, revenue 500%, activity 100%, and event variety 100% using a data driven approach.
- Organised a cohort of new teachers and developed a culture of constructive feedback and mutual growth.
- Awarded "Hidden Hero Society of the Year" at the university awards (2022) and nominated for two other awards.

Team Captain — Oct 2015 – Jun 2020
University of York and Lancaster University Pool Teams
- Four different university college pool teams (and we actually won the last one!)

AWARDS

- Bayes4Health: New Approaches to Bayesian Data Science project fully funded PhD Studentship (2018).
- Royal Statistical Society Prize for 'outstanding performance on an accredited programme' (2018).
- Postgraduate Statistics Centre Prize for 'Excellence in Learning' (highest cohort average) (2018).
- NIHR Studentship (Statistics MSc – Full course fees and a ~£15,000 stipend) (2017).
- Kathleen Ryan prize for outstanding performance in final year single subject BSc Mathematics (highest cohort average) (2017).