Charlie Homewood



♥ 9 Bernard Road, Brighton, BN2 3ER■ charliehomewood99@gmail.com□ 07307233382

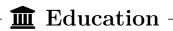
○ Github | in Linkedin | ■ Website

Summary

MSc Data Science student with strong academic and vocational experiences, utilising R and Python across a variety of analysis tasks. I love solving problems using statistical inference and machine learning techniques, as well as communicating research insights to others to provide valuable decision-making evidence. I believe my skill set places me in a strong position to be a valuable addition to your data team. I am currently seeking an exciting short-term experience as a data scientist (April-Sept 2025).

Skills
R (Strong)

Python (Intermediate)
Excel (Intermediate)
SQL (Basic)



MSc Data Science

2024-2026 University of Sussex

Relevant Modules

- Data Analysis Techniques (Overall Grade: 90%)
 - Mathematical background to core data analysis techniques: treatment of errors, maximum-likelihood estimation, least-squares fitting, Monte Carlo (incl. Markov Chain) techniques, gradient descent
 - Software exercise: Monte Carlo estimation, model selection, and Markov Chain Monte Carlo parameter recovery (Grade: 88%, written in Python)
- Data Science Research Methods (Overall Grade: 74%)
 - Data cleaning/wrangling, exploratory data analysis, supervised/unsupervised learning methods & dimensionality reduction
 - Analysis of the Open University Learning Analytics

 Dataset (OULAD) (Grade: 73%, written in Python)
 - Analysis of IMDB dataset to recommend genre, director, lead actor for SussexBudgetProductions (fictional company) next movie (Grade: 64% [incl.
 - -10% for exceeding word count], written in Python)
 - * Findings presented in 5 minute video presentation (Grade: 97%)
- Monte Carlo Simulations (Overall Grade: TBA)
 - Mathematical background to RNG, rejection/inversion methods, variance reduction & Markov Chain Monte Carlo
- Wider Topics in Data Science (Overall Grade: TBA)
 - Essay Title: Detecting Misinformation On Social Media Using Neural Networks

BSc Psychology with Economics

2019-2023 University of Sussex Grade: 1st class (Hons)

Relevant Modules

- Research Dissertation
 - Conducted computational reproductions of analyses published in peer-reviewed journal articles.
- Quantitative and Qualitative Methods
 - Conducted an exploratory factor analysis on data from a self-esteem questionnaire I produced.
 - Compared linear regression models via ANOVA to test hypotheses on parent-child emotional expression.

Awards

- The Sage Publications Prize for Outstanding Application of Statistical Methods (2023).
 - I received this award for my research dissertation project.
 - "To be awarded for the highest mark for a project that a supervisor has nominated based on outstanding application of statistical methods."

♀ Relevant Work Experience —

Aten Consult

Data Analyst
May 2024 - Sept 2024

Responsibilities

- Used SQL and consulted with council departments to develop my team's understanding of various datasets, informing the production of a bespoke building safety management app to enhance compliance with the the Used SQL and Consulted with council departments to develop my team's understanding safety management app to enhance compliance with the "Golden Thread" recommendation from The Building Safety Act (2022).
- Used R to pre-process and clean a large resident contact details data extract, enabling Camden's resident engagement team to gain greater outreach to residents.

Internships -

Datacove

Data Analyst Intern July-September 2023

A chievements

- Created a training course on conducting logistic regressions in R to be offered as part of Datacove's portfolio of commercial training courses.
- Wireframed an analysis dashboard (MS PowerPoint and <u>Kibana</u>) for a client to help them identify and resolve security vulnerabilities in websites in the UK.
- Optimised media mix models in R to support clients in understanding how various contributing variables relate to their KPIs, allowing them to make evidence-based decisions in their marketing strategies.

	-	Mindlab		
Project	Manager	r	(Interior)	ern)
	Jun	e	July .	2022

A chievements

- Designed and produced experimental stimuli for the pilot phase of an internal research experiment seeking to validate and improve Mindlab's 'Findability' measurement tool.
- Produced a summary report of a project that developed a segmentation method to gain insight into consumer characteristics.
- Helped Mindlab to explore the viability of incorporating 'Social Listening' into Mindlab's series of measurement tools. This tool subsequently became part of Mindlab's commercial portfolio.

- 🖋 Personal Projects ——

Making Percentile Radars January 2023

Description

• Developed an R Shiny dashboard to display live statistics for male football players, using data scraped from fbref