

Charlie Homewood



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🔗 [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)

🏛 Education

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 "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

Achievements

- 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 [Kibana](#)) 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 (Intern)

June-July 2022

Achievements

- 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](#)