



# Christian Payne

EXPERIENCED DATA SCIENTIST

London, U.K.

✉ [paynechristian@outlook.com](mailto:paynechristian@outlook.com) | 🏠 [ChrisPayneHome.github.io](https://github.com/ChrisPayneHome) | 📺 [ChrisPayneHome](https://www.youtube.com/ChrisPayneHome) | 📄 [christian-payne-1a3022101](https://www.linkedin.com/in/christian-payne-1a3022101)

## About Me

I am a data scientist with experience working within agile data science teams to deliver impactful insights from sensitive data at pace.

## Experience

### Senior Data Scientist

Croydon, U.K.

HOME OFFICE

March 2023 -

- Worked within the network analytics team in Data Services and Analytics (DSA) Data Science
- Attached to a product with >10,000 users across a variety of government departments and agencies
- Responsible for a network analytics based investigative tool
- Introduced multithreading to increase pipeline performance and explored the use of a ML classifier to identify relevant events from unstructured text data
- Participated in a number of internal hackathons focussed on synthetic data generation and computer vision image classification tasks

### Operational Researcher

Westminster, U.K.

HOME OFFICE

August 2021 - March 2023

- Member of the Government Operational Research Service (GORS) within Home Office Analysis and Insight (HOAI)
- Working within the crime and justice portfolio covering a variety of crime types including homicide, drugs, sexual offending, and domestic abuse
- Led and produced multiple pieces of quantitative analysis for a variety of internal and external stakeholders, including Ministers, No. 10, the National Police Chief's Council (NPCC)

### Research Apprentice

Winchester, U.K.

CENTRE FOR ENGLISH IDENTITY AND POLITICS

2018

- Assigned to work for 3 months alongside Prof. John Denham on a project examining ethnic diversity within St. George's day promotional materials.
- This project primarily involved collecting data, conducting analysis, and writing a research report.

## Education

### London School of Economics and Political Science (LSE)

London, U.K.

MSc POLITICAL ECONOMICS

2019 - 2020

- A quantitative course in economics and politics with a focus on research design and statistical modeling
- Courses include: Applied Regression (Distinction), Causal Inference (Distinction), Game Theory (Merit), and Applied Machine Learning for Social Scientists (Merit)
- Overall Grade: Merit

### University of Winchester (with a semester at Westminster College, U.S.A)

Winchester, U.K & Missouri, U.S.A

BA (HONS.) PHILOSOPHY, POLITICS, AND ECONOMICS (MAJOR: ECONOMICS)

2016-2019

- Final Year Modules: Public Economics, International Economics, and Politics of the Post-Crash Economy
- Dissertation: An econometric evaluation of the Mincer model of earnings determination as a factor behind the UK gender pay gap (Top economics dissertation of the year)
- Overall Grade: First Class Honours (US GPA: 3.93)

## Skills

### TECHNICAL SKILLS

Coding Languages	Software	Other
R - Python - SQL - HTML - Bash - Cypher	RStudio - PostgreSQL - DBeaver - PGAdmin - Elasticsearch - Neo4j - MongoDB - Drone - Kubernetes - Drone	Git - Markdown - GitLab - Jira - Opensearch

## COURSES

2022	Foundations of OR: Essential OR Skills for Practitioners	<i>Operational Research Society</i>
2022	Understanding the Workings of Government	<i>LSR</i>
2022	Analytical Oral Briefings & Presentations	<i>LSR</i>

## Memberships and Awards

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2022	Member	<i>Operational Research Society</i>
2021	Member	<i>Royal Statistical Society</i>
2018	Winchester Scholar	<i>University of Winchester</i>
2018	Richard B. Koch Essay Prize (Finalist)	<i>Institute for Economic Affairs</i>

## Portfolio Projects

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### Premier League Match Prediction

- Built a Premier League football match prediction model using web scraped data.
- This involved building a reproducible data engineering pipeline and training a result classification model.

### UK Election Forecasting

- Worked on a model to predict the outcome of a future UK general election.
- This project involved the matching data from multiple sources and building a model.

### Lord Of The Rings Character Network Analysis

- Created a LOTR character network analysis using the SpaCy entity detection model and NetworkX library.
- Visualised these networks using HTML widgets

### Voter Segmentation Analysis

- Worked on an unsupervised cluster model using voter data
- Visualised these clusters using Principal Components Analysis

### Friends TV Show Scene Generation

- Generated a scene from the TV show Friends using an LSTM Neural Network
- Involved cleaning the data and building the model