Data Scientist

70 Whitehall, London

Cabinet Office
The centre of the UK government for 100 years. We support the Prime Minister & make sure the government runs effectively

Cabinet Office, Whitehall – £37,102 to £47,639

ABOUT THE CABINET OFFICE
The Cabinet Office and Number 10, alongside HM Treasury, form the government’s corporate centre, co-ordinating policy and promoting efficiency and reform. Our purpose is to make government greater than the sum of its parts by providing challenge, support and expertise. In doing this we must focus only on what is most efficiently and effectively done at the centre. This includes supporting the Prime Minister, co-ordinating intelligence and security, leading digital transformation, providing expert support to departments and agencies and improving Civil Service capability and effectiveness. The Cabinet Office will also continue to improve the effective running of the department to facilitate the implementation of cross-government priorities.

BACKGROUND TO THIS ROLE

Government Communication Service
The GCS central unit is at the very heart of government and spans Cabinet Office and 10 Downing Street. We lead on the Prime Minister’s priority campaigns, both domestic and international, including the research and insight that supports them. We make sure everyone working in government communications is on the path to becoming world class. We are always looking for new trends in the market, academics and thought leaders we can learn from and a range of other opportunities to define what world class looks like and how to reach it. Where possible we learn from and share best practice with colleagues around the world. We are responsible for approving the whole of government's marketing spend and support departments to deliver the best possible outcomes. We work closely with marketing, PR, Digital and other agencies to help us deliver and improve our work.

We work together as one team to deliver communications that improves, changes and saves lives, at home and abroad.

Information about the Cabinet Office can be found by visiting www.cabinet-office.gov.uk

Work of the DATA team
The cross-government Digital Audience Targeting and Analysis team is a small multi-disciplinary unit based jointly in the Prime Minister’s Office and the Cabinet Office that applies ethical standards to research of publicly available data. With experts drawn from a wide range of digital, data and communications disciplines, the team provides insight and analysis, audience segmentation and paid-for targeting underpinned by real-time analytics and modelling. This agile team continually strives to produce increasingly sophisticated analysis, targeting and insight by harnessing the wide variety, velocity and volume of communications data. All work operates within a strict code of conduct and transparency.

THE ROLE
Are you a curious and talented data scientist who can use innovative methods with big data to deliver insights and tools to improve understanding and performance? Do you want to work at the heart of government in a fast paced team? Are you passionate and comfortable taking ownership of data science projects, working collaboratively in a multidisciplinary team with both technical and non-technical domain experts?
As a Data Scientist in the DATA team you will form part of a small, agile team that delivers robust insights and innovative solutions for strategic communication. Your work will focus on delivering high-value projects that improve audience insights and drive efficiencies, and practically demonstrate the benefits of using data science techniques to support the digital transformation of government.

Using your experience of applying machine learning algorithms and statistical techniques to large, complex datasets you’ll explore data to discover new information, build predictive models and construct compelling data narratives. You’ll be curious about analysing a range of digital behavioural signals and digital targeting, and using these findings you will rapidly prototype high-quality applications, meeting user needs. You will persuasively advocate the value of these data science approaches to varying audiences of both technical and non-technical people.

The role of Data Science in government is developing quickly and you will play a part in shaping the future direction. We are looking for candidates who can help government learn and adapt to new techniques and innovate. Knowledge sharing and quality control are important aspects of the team’s success, and you will champion best practices through leading by example. As well as your existing knowledge and experience of data science techniques, we want people who are proactive in seeking to learn more and will support others in developing new skills.

Comfortable talking with very senior colleagues, you’ll have the ability to clearly explain complex data solutions in simple terms, both in presentations and in written reports and blogs. Working with people from a vast array of disciplines across Whitehall and beyond, you’ll use your insights to influence government communications. Working in the team will give you an insight into the complex, fast paced and exciting world of central government.

**MAIN RESPONSIBILITIES**

- Owning and delivering on specific work areas, tasks and projects (e.g. modelling, running experiments and testing, building prototypes or developing new capability), which includes identifying a specific business need and then determining the best tools, data and techniques to address it.
- A strong delivery focus, developing rapid prototypes of creative solutions that deliver insights on-demand, engaging users and stakeholders in the process.
- Disseminating key findings to a range of stakeholders using compelling visuals and explaining complex matters in simple and clear terms. Overseeing internal reports for factual and methodological accuracy, while making sure we use clear and concise language.
- Contributing to the strong collaborative working environment within the team.
- Assisting with project planning and management, and identifying potential project challenges or risks and highlighting these to project leads.
- Working well with a variety of individuals to build community, capability and credibility.
- Actively participating in the wider development of Data Science capability in Government through aspects such as code sharing, ‘show and tells’ and by championing best practices such as version control, unit testing, code review, and well documented applications.
- Keeping abreast of Data Science wider landscape and emerging technologies across Government and industry.

**COMPETENCIES**

It is essential that you have:

- Experience in understanding business problems and addressing them through data – characterised by high-volume, high dimensionality from multiple sources.
- Experience with building predictive statistical, behavioural or other models via supervised and unsupervised machine learning, statistical analysis, and other predictive modelling techniques.
- Experience with using standard statistical techniques such as multivariate regression analysis, factor analysis, significance testing, cluster analysis, and Bayesian analysis.
- Strong proficiency in applying analytical and statistical techniques using a variety of software/codebases e.g. R, Python, SAS, SPSS, Matlab.
• Proficiency in data wrangling techniques, comfortable working with SQL and NoSQL databases, APIs and web based acquisition methods.
• Proficiency in a number of specialisms e.g. Natural Language Processing, Network analysis, Geospatial analysis, Time-series analysis, Econometric modelling.
• Ability to quickly research and learn new programming tools and techniques.
• Experience of leading small-scale data science projects.
• Ability to construct and effectively communicate data stories using data visualisation techniques and narrative storytelling.
• Understanding of working with data to build data-rich full-stack web applications, in collaboration with other technical roles.
• Understanding of data privacy and ethical considerations when applying data science.

It is desirable that you have:

• A postgraduate degree in a field strongly related to data science, i.e. one that involves applied mathematics/statistics and coding.
• Experience of writing on technical data science uses for a range of audiences. For example, blog posts, published papers or user manuals.
• Experience of developing data science applications or tools for end users. This could be more complex software package extensions or web developments for more simple applications.
• Experience of working within an agile project team and been involved in assisting with project tasks and sprint planning.
• Experience with Geographical Information Systems (GIS) and/or JavaScript and D3.
• Experience with cloud computing solutions, such as Hadoop, Spark, Hive, Impala, BigQuery, TensorFlow, Theano, or similar.

How to Apply:
For further information about the roles and to apply please follow the link below.

Closing Date: 7th July 2017

The Cabinet Office are equal opportunity employers and positively encourage applications from suitably qualified and eligible candidates regardless of sex, race, disability, age, sexual orientation, gender reassignment, religion or belief, marital status, or pregnancy and maternity. All information that we hold concerning you will be held and processed by The Cabinet Office strictly in accordance with the provisions of the Data Protection Act 1998.

Such data will be used by Cabinet Office to administer the Recruitment Campaign. The Cabinet Office will not supply any information you have passed to us to any third parties without your consent except where (1) such transfer is a necessary part of the activities we undertake, or (2) we are required to do so by operation of law.

As an individual, you have a right under the Data Protection Act 1998 to obtain information from us, including a description of the data that we hold on you. Should you have any queries concerning this right, please contact our Data Protection Officer.