

LONDON BOROUGH OF LEWISHAM

JOB DESCRIPTION

Designation:	Data Scientist	Grade:	PO5
Reports to (Designation):	Data Engineer	Grade:	PO7
Directorate:	Children and Young People's services	Section:	Head of Strategy and Improvement

Main Purpose of the job:

- To lead data science projects from start to finish, understanding requirements, interrogating complex and disparate datasets (both internal and external)
 - To develop, run models and share outputs to support decision-making
 - To apply data science techniques (predictive analytics, data modelling, data mining, machine learning and data visualisation) to help solve some of the most pressing and complex challenges faced by local/regional government and the wider health and social care ecosystem
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Summary of Responsibilities and Personal Duties:

- Plan, manage and deliver complex data science projects
- Work closely with the business to identify issues and use data to propose solutions for effective decision-making
- Work closely with IT, data engineers and architect, data scientists and others to identify and implement best practices
- Conduct research, interrogate multiple datasets and explore data using leading data science techniques
- Use machine learning tools, statistical and analytical techniques to generate new insight for customers and partners
- Support the preparation and cleaning of data, through identification of issues and building automated solutions for resolving issues
- Support/lead workshops to understand customer information, analysis and research needs
- Combine internal and external datasets (e.g. partners, open data) to drive insights and develop models across the Children and Young People's Services
- Create clear outputs (e.g. reports, dashboards or other visualisations) of identified insights for customers
- Maintain awareness of data science developments
- Understand behaviours, long-term trends and the wider ecosystem to ensure analysis and outputs are relevant and action can be taken by stakeholders, informed by the evidence
- Work with Service Designers to produce evidence-based solutions
- Interrogate multiple datasets which range in size, complexity, source and format
- Use Quantitative analysis and applied data science techniques to understand patterns in the data and identify answers to key questions
- Lead/support workshops to scope and understand the problem to be solved and propose solutions based on the available data
- Work as part of a team and wider partnership working to fully understand requirements and generate appropriate outputs for stakeholders

- Utilise open-source software (e.g. Python, R) to full effect, whilst also working in an open and transparent manner to allow the wider Business Intelligence team to understand and apply models/techniques in future
- Identify additional datasets required to better understand the problems or to monitor future outcomes
- Visualise data and translate complex analysis into plain English for non-specialist audiences, helping them to understand the key themes/trends and root causes to support actions & decision making
- Meet with members of the leadership team and attend programme board meetings to summarise findings and potential next steps, working with the business as and when required to build the story

Internal Contacts: These include colleagues across the organisation, CYP services, service managers, Insight and Delivery team, , communications team, customer services team

External Contacts: This will include residents, public sector partners and colleagues in similar roles across local government for knowledge-sharing.

As a Lewisham Officer you will:

- Be responsible for professional advice and support in the service area to deliver in partnership with others the councils vision, values and ways of working.
- Ensure the delivery of identified service objectives and continuous improvement of service targets.
- Ensure performance and quality improvement through supporting and nurturing others to lead and manage innovative approaches to achieving results.
- Carry out the duties of the post with due regard to the Council's Equal Opportunities Policy and core values.
- Carry out these and any other duties within the scope of the post flexibly and with full regard to the confidential nature of the post.
- All employees are required to participate in the Performance Evaluation Scheme (PES) and to undertake appropriate training and development identified to enhance their work.
- All employees are required to comply with the Council's Health & Safety policies and procedures at all times, taking due care for themselves, colleagues and members of the public.
- Assist in carrying out the Council's environmental policy within the day to day activities of the post.
- Undertake other duties, commensurate with the grade, as may reasonably be required.
- To carry out the duties of the post with due regard to the Council's Dignity at Work Policy and core values.
- All employees are required to comply with the Council's Health & Safety policies and procedures at all times, taking due care for themselves, colleagues and members of the public.

Consideration will be given to making reasonable adjustments for a disabled postholder

THIS JOB DESCRIPTION MAY NEED TO BE AMENDED BY THE DIRECTORATE TO MEET
THE CHANGING NEEDS OF THE SERVICE.

Number of fully managed staff: N/A

Title:	Grade	No of posts
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Number of partially managed staff: N/A

Title:	Grade	No of posts
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PERSON SPECIFICATION

JOB TITLE: Data Scientist

POST NO: tbc

DEPARTMENT: CYP

GRADE: PO5

Note to Candidates

The Person Specification is a picture of the skills, knowledge and experience needed to carry out the job. It has been used to draw up the advert and will also be used in the shortlisting and interview process for this post.

Those categories marked 'S' will be used especially for the purpose of shortlisting.

Please ensure that Equality and Diversity issues are addressed specifically in relation to the role for which you are applying when addressing the requirements of this person specification where appropriate.

If you are a disabled person but are unable to meet some of the job requirements specifically because of your disability, please address this in your application. If you meet all the other criteria you will be shortlisted and we will explore jointly with you if there are ways in which the job can be changed to enable you to meet the requirements.

Equality & Diversity

Awareness of and a commitment to Equality of Access and Opportunity in a diverse community	S
Understanding of how equality and diversity relates to this post	S

Knowledge, Aptitude & Skills

(Skills can only be used as shortlisting criteria if the skill is to be tested)

(To Be Tested – S)

- Familiar with, and able to interrogate, relational databases and transform data as required for data science projects **S**
- Skilled coder with advanced proficiency in using R and/or Python **S**
- Skilled at the intersection of analysis, data science and data engineering
- An inquisitive mindset with an aptitude for problem-solving
- Proven ability to construct and effectively communicate data stories to a range of stakeholders, including non-specialists, and confident speaking to senior leaders using data visualisation techniques and narrative storytelling **S**
- Able to apply objective analysis of facts on a given topic or problem before formulating opinions or rendering judgments to support decision making **S**
- Proactive, reliable, self-motivated and results focused
- Able to interpret often complex requirements and deliver information and analytics solutions to a wide range of stakeholders **S**
- Effective interpersonal skills with the ability to relate to all levels within the visualization and with partner agencies
- Able to work collaboratively within a multi-disciplinary team
- Knowledge of local government systems, statutory duties and business processes.

Experience

- Strong quantitative background
- Demonstrable experience with data cleaning, data pre-processing, feature-engineering
- Demonstrable experience with statistical modelling, machine-learning, forecasting algorithms, data-mining, data visualization, structured and unstructured datasets and/or natural language processing
- Demonstrable experience of Power BI development **S**
- Experience developing scalable and reproducible data pipelines within cloud, delivering data models process automation to agreed standards
- Demonstrable experience of GIS and Mapping tools
- Demonstrable experience of quickly researching and learning new programming tools and techniques
- Understanding of standard statistical techniques such as regression analysis, factor analysis, significance testing, cluster analysis, topic-modelling and Bayesian analysis
- Experience with Git or other version control tools
- Experience of working within an agile project team and been involved in assisting with project tasks and sprint planning
- Experience in building predictive statistical, behavioural or other models via supervised and unsupervised machine learning, statistical analysis, and other predictive modelling techniques
- Understanding of data privacy and ethical considerations when applying data science
- Experience managing workloads, prioritising and completing tasks within deadlines and to the required standard
- Experience of data visualisation software (e.g. Power BI or Tableau) **S**

General Education- Essential

- A bachelor's degree in data science, computer science (Master's degree preferred) or numerate discipline
- Proficiency in at least one of the following programming languages: Python, R, or Matlab (lead essential criteria)

Personal Qualities

Candidates are expected to adhere to Lewisham's values

Circumstances

N/A

DBS Disclosure Required? **No** ☐ **Basic** ☒ **Enhanced** ☐

Physical

Generally candidates must meet the standard Lewisham requirements for the post