**Job Description**

**Job title: Data Scientist (LODA)**

**Grade: 8 Post number: GLA2981**

**Directorate: Communities and Intelligence**

**Unit: Intelligence Unit Team: City Data Team**

**Job purpose**

1) To support the work of the Intelligence Unit and the wider GLA by applying machine learning algorithms and statistical techniques to large, complex datasets - discovering new information, solving problems and constructing compelling data narratives.

2) To help provide high quality information and advice to inform the development of policy and service delivery by the GLA and to further develop the Intelligence Unit’s reputation as an authoritative and well-regarded source of reliable information and data on these issues.

3) An important part of the role will be to identify and experiment with new techniques as needed to support delivery of data science projects, and to share this knowledge with the team or with the public.

**Principle accountabilities**

1. Provide data science expertise and deliver new insights for the organisation on projects with different teams across the GLA
2. Play an active role in algorithm design and development for analytical work undertaken by the GLA
3. Work in partnership with London Boroughs, other cities and specialist SMEs on data science projects to innovate in the use of data to address city challenges
4. Produce simple front ends that allow users to interact with algorithms, results and visualisations in a way that adds value to the organisation.
5. Assist technical specialists/modellers and policy staff in understanding and translating their needs to an actionable data science project
6. Actively contribute to and participate in London’s open data community, by publishing new data, finding new uses for datasets, gathering user needs and promoting the work of the GLA
7. Speak to both technical and non-technical audiences within the GLA and its partners about the applications of data science in government
8. Share knowledge and provide active support for the wider team of analysts within the GLA about coding, data science tools/techniques and best practices
9. Realise the benefits of London’s diversity by promoting and enabling equality of opportunities and promoting the diverse needs and aspirations of London’s communities.
10. Realise the benefits of a flexible approach to work in undertaking the duties and responsibilities of this job, and participating in multi-disciplinary, cross-department and cross-organisational groups and project teams.
11. Manage any staff and/or resources allocated to the job in accordance with the Authority’s policies and Code of Ethics and Standards

**Accountable to:** GIS and Infrastructure Manager

**Accountable for:**

- Resources allocated to the job, to include specialist software, hardware and data

**Person specification**

**Technical requirements/experience/qualifications**

1. Ability to understand business problems and to address them using data characterised by high-volume, high dimensionality and from multiple sources.
2. Experience using predictive, statistical, or other mathematical techniques including supervised and unsupervised machine learning (including the ability to determine the best technique to solve a particular problem).
3. An excellent grasp of standard statistical techniques for data analysis and exploration, such as regression and cluster analysis, and as well as experience using these techniques to solve real-world problems in a work environment.
4. Strong proficiency in applying statistical techniques and machine learning algorithms using a variety of software/codebases e.g. R, Python to build reproducible processes.
5. Ability to identify and effectively communicate data stories using data visualisation techniques
6. Ability to quickly research and learn new programming/modelling tools and techniques
7. Experience/knowledge about infrastructure for big data and data science analysis
8. A postgraduate degree in a quantitative field strongly related to data science, i.e. one that involves applied mathematics/statistics and coding or equivalent professional experience.

**Behavioural competencies**

**Building and Managing relationships –**

… is developing rapport and working effectively with a diverse range of people, sharing knowledge and skills to deliver shared goals.

**Why is it important?**

Having good working relationships with colleagues and effective alliances with eternal partners will help create an organisation people want to work with, enabling more effective delivery of the organisation’s strategic priorities.

**Level 2**

* Develops new professional relationships
* Understands the needs of others, the constraints they face and the levers

to their engagement

* Understands differences, anticipates areas of conflict and takes action
* Fosters an environment where others feel respected
* Identifies opportunities for joint working to minimise duplication and

deliver shared goals

**Stakeholder Focus –**

… is consulting with, listening to and understanding the needs of those our work impacts and using this knowledge to shape what we do and manage others’ expectations.

**Why is it important?**

Stakeholders are anyone (internal or external) on whom our work impacts. We need to manage their expectations, respond to their aspirations and use diverse views to shape our work and deliver our vision for London.

**Level 1**

* Listens to understand requirements without making assumptions
* Demonstrates an enthusiastic and ‘can do attitude’ to all requests
* Provides timely, accurate and personalised responses
* Provides a polite and helpful first point of contact for stakeholders
* Learns from feedback to improve personal service to others

**MANAGING AND DEVELOPING PERFORMANCE –**

… is setting high standards for oneself and others, guiding, motivating and developing them, to achieve high performance and meet the GLA’s objectives and statutory obligations.

**Why is it important?**

We want to perform at the highest standard to deliver the GLA’s objectives. This means encouraging everyone to use their skills and knowledge

in the most effective way and develop to their full potential.

**Level 1**

* Keeps up to date with new processes and information in own role
* Seeks opportunities to develop, taking responsibility for own personal

development plan

* Takes a methodical and consistent approach to completing work in line

with personal objectives

* Seeks clarity on objectives, ensuring a good understanding of expectations
* Openly shares constructive feedback, supporting the delivery of own and

others’ work

**Planning and Organisation –**

… is thinking ahead, managing time, priorities and risk, and developing structured and efficient approaches to deliver work on time and to a high standard.

**Why is it important?**

Success is measured by results. We will be judged by our ability to turn ideas and opportunities into concrete actions, working in partnership with others to deliver clear outcomes for Londoners in priority areas.

**Level 2**

* Prioritises work in line with key team or project deliverables
* Makes contingency plans to account for changing work priorities, deadlines
* and milestones
* Identifies and consults with sponsors or stakeholders in planning work
* Pays close attention to detail, ensuring team’s work is delivered to a high
* standard
* Negotiates realistic timescales for work delivery, ensuring team deliverables
* can be met

**Problem Solving –**

… is analysing and interpreting situations from a variety of viewpoints and finding creative, workable and timely solutions.

**Why is it important?**

Our work involves breaking new ground. We need to understand the challenges the GLA, the GLA Group and other partners face and respond innovatively with new ideas and ways of working together.

**Level 2**

* Processes and distils a variety of information to understand a problem fully
* Proposes options for solutions to presented problems
* Builds on the ideas of others to encourage creative problem solving
* Thinks laterally about own work, considering different ways to approach problems
* Seeks the opinions and experiences of others to understand different approaches to problem solving

**Research and Analysis –**

… is gathering intelligence (information, opinion and data) from varied sources, making sense of it, testing its validity and drawing conclusions that can lead to practical benefits.

**Why is it important?**

The GLA has a strong reputation as a hub for London-related research. Quality information and insight will help us develop and substantiate robust policy and decisions which will lead to tangible benefits for Londoners.

**Level 2**

* Proactively seeks new information sources to progress research agendas
* and address gaps in knowledge
* Grasps limitations of or assumptions behind data sources, disregarding
* those that lack quality
* Analyses and integrates qualitative and quantitative data to find new insights
* Translates research outcomes into concise, meaningful reports
* Identifies relevant and practical research questions for the future

**Responding to Pressure and Change**

… is being flexible and adapting positively, to sustain performance when the situation changes, workload increases, tensions rise or priorities shift.

**Why is it important?**

We operate in a challenging social, economic and political context that is constantly changing. We need to respond to this positively and resiliently to ensure we continue to meet the needs and expectations of Londoners.

**Level 2**

* Maintains a focus on key priorities and deliverables, staying resilient in the

face of pressure

* Anticipates and adapts flexibly to changing requirements
* Uses challenges as an opportunity to learn and improve
* Participates fully and encourages others to engage in change initiatives
* Manages team’s well-being, supporting them to cope with pressure and

change