**Job Profile comprising Job Description and Person Specification**

**Job Description**

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| **Job Title:** Data Scientist | **Grade**: SO1-SO2 Trainee Data Scientist PO1-PO3 Data Scientist  |
| **Section:** Policy and Performance | **Directorate:** Chief Executive’s Group |
| **Responsible to following manager:**Insight and Analytics Manager | **Responsible for following staff:****n/a** |
| **Post Number/s:** | **Last Review Date:** April 2019 |

**Working for the Richmond/Wandsworth Shared Staffing Arrangement**

This role is employed under the Shared Staffing Arrangement between Richmond and Wandsworth Councils. The overall purpose of the Shared Staffing Arrangement is to provide the highest quality of service at the lowest attainable cost.

Staff are expected to deliver high quality and responsive services wherever they are based, as well as having the ability to adapt to sometimes differing processes and expectations.

The Shared Staffing Arrangement aims to be at the forefront of innovation in local government and the organisation will invest in the development of its staff and ensure the opportunities for progression that only a large organisation can provide.

**Job Purpose**

The post holders in this team will be responsible for supporting the provision of efficient and effective data analytics and insight, that informs the business of Richmond and Wandsworth councils and its key partners. The person will work closely with other analysts to support heads of services across the councils, including but not limited to, policy and performance, public health, community safety, adults and children’s services.

**Current Post**

The post will be recruited at one of two levels, depending on the selected candidates experience.

* Trainee Data Scientist: Candidate can perform the basic duties and responsibilities of the post. Person will be recruited at SO1-SO2. The SSA will offer on the job training and access to level 4 data sciences apprenticeship to further develop skills. The candidate will be able to progress to higher grades as they demonstrate their skills and experience.
* Data Scientist: Candidate can perform the basic duties and responsibilities and those at SO1 and SO2 level. They will start from PO1-PO3 based on their skills and experience, and they will have the opportunity to grow within the range.

### Basic Duties and Responsibilities

1. Discover and understand the strengths and limitations of new data sources and incorporate them into analytical products.
2. Summarise data on relevant issues, form internal and external sources, for incorporation into reports, briefs, evidence summaries, presentations etc.
3. Develop data processing, data management, report production, visualization and analyses solutions to support existing and emerging team needs.
4. Assess, interpret, and evaluate and communicate analytical products and evidence.
5. Document, explain and justify the analytical approach undertaken to assist with cross coverage and assessment of analytical work.
6. Advise partners and colleagues on strengths and weaknesses of different datasets and statistics, and analytical approaches.
7. Customise output of analyses for the intended audience, including presenting data in a highly graphical and ‘infographic’ format.
8. Scope out the details of analytical work with the client and help refine the question to be answered.
9. Develop and maintain good working relationships with internal and external stakeholders and work with them to understand their requirements. Provide advice and high-quality analytical products that inform service reviews, service improvement and changes, policy development and understanding of client and population need.
10. Undertake a progressive attitude to learning the full set of analytical skills within the team, this includes but is not limited to, concepts of statistics, epidemiology, costs effectiveness, cost benefit analysis, infographics and survey techniques.
11. Take an equal share in the ad-hoc information requests received by the Team from elected Members, internal and external partners.
12. Ensure that the services for both Councils are dealt with on an equitable basis to deliver the standards required for each, as agreed annually by the Executives of both Councils.
13. The Shared Staffing Arrangement will keep its structures under continual review and as a result the post holder should expect to carry out any other reasonable duties within the overall function, commensurate with the level of the post.

**Additional Information**

* Due to the nature of the analytical work, there will be occasions when it is necessary to attend and present at meetings outside of the Department, in the evenings and to a public audience.
* Post holder will be expected to work flexibly across two locations (Wandsworth Town Hall and Richmond Civic Centre).

### Progression Criteria

**SO2**

* Familiar with local government structure and functions.
* Able to articulate and apply data security and information governance procedures.
* Develop SQL and statistical programming skills.
* Develop basic mapping skills (GIS) e.g. point and thematic maps.
* Able to create simple data visualizations using software e.g. Power BI
* Share your knowledge and skills with colleagues to improve their data sciences skills.
* Come up with new and creative and systematic solutions to source, clean, aggregate and analyse data

**PO1**

* Familiar with locally collected Council data and other key data sources used by the council.
* Intermediate data querying, statistical programming and mapping skills (GIS).
* Able to plan and transfer data science skills to other team members.
* Provide high quality analytics and insight to support procurement and commissioning decisions and inform policy review and changes.
* Able to think and plan new analysis to garner insight from available data and be able to articulate impact of data limitations.
* Work independently with key internal partners to negotiate data access, data requests, and provide analytical advice.

**PO2**

* Ability to lead areas of analysis and projects, with minimal levels of supervision.
* Anticipates pressure points and potential problems and takes appropriate action without having to be instructed on every occasion.
* Able to apply advance analytical skills and statistical concepts e.g. statistical testing, data distributions, predictive analysis, for complex tasks such as projects demand for services and understanding population needs.
* Able to manage and make decisions about data projects (data gathering, data management, analysis and presentation) with minimal supervision.
* Proficient in creating effective data visualizations to communicate findings and track progress.
* Work independently with partners to complete work requests, obtain data and provide analytical guidance and advice.
* Able to manage analytical projects under tight and at times evolving deadlines.

**PO3**

* Proficient in various advance data querying (structured and unstructured data) and advance statistical analysis.
* Able to plan and lead analytical projects to completion.
* Able to independently provide credible and accurate advice on planning and implementation of data projects and data solutions to key stakeholders.
* Negotiate sensitive work requests (e.g. content, outputs, deadlines) with internal and external partners that have implications for team’s workload and reputation.
* Make decisions about analytical direction for projects with procurement and commissioning implication.
* Able to provide strategic input into the future of data and analytics at the Council.
* Able to carry out the full range of duties with minimal supervision and demonstrating initiative.
* Presents analytical information and insight to senior management without supervision.
* Provides advice and analytical supervision support to other members of the Team as needed.
* Able to deputise for the Team Manager as needed.

**Generic Duties and Responsibilities**

1. To contribute to the continuous improvement of the services of the Boroughs of Wandsworth and Richmond.
2. To comply with relevant Codes of Practice, including the Code of Conduct and policies concerning data protection and health and safety.
3. To adhere to security controls and requirements as mandated by the SSA’s policies, procedures and local risk assessments to maintain confidentiality, integrity, availability and legal compliance of information and systems
4. To promote equality, diversity, and inclusion, maintaining an awareness of the equality and diversity protocol/policy and working to create and maintain a safe, supportive and welcoming environment where all people are treated with dignity and their identity and culture are valued and respected.
5. To understand both Councils’ duties and responsibilities for safeguarding children, young people and adults as they apply to the role within the council.

**Current team structure**

**Person Specification**

|  |  |
| --- | --- |
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**Our Values and Behaviours**

The values and behaviours we seek from our staff draw on the high standards of the two boroughs, and we prize these qualities in particular:

**Being open.** This means we share our views openly, honestly and in a thoughtful way. We encourage new ideas and ways of doing things. We appreciate and listen to feedback from each other.

**Being supportive.** This means we drive the success of the organisation by making sure that our colleagues are successful. We encourage others and take account of the challenges they face. We help each other to do our jobs.

**Being positive.** Being positive and helpful means we keep our goals in mind and look for ways to achieve them. We listen constructively and help others see opportunities and the way forward. We have a ‘can do’ attitude and are continuously looking for ways to help each other improve.

| **Person Specification Requirements** | **Assessed by** **A**  **&**  **I/ T/ C (see below for explanation)** |
| --- | --- |
| **Knowledge**  |
| Proficient in basic statistical concepts and processes (e.g. averages, distributions, statistical significance) | A/I/T |
| Data presentation (e.g. tables, charts, infographics) | A/I/T |
| Analytical approaches and techniques, such as comparative analysis (e.g. ranking), trend analysis (e.g. trend lines), standardisation techniques (e.g. calculating rates). | A/I/T |
| Familiarity with advance statistical concepts e.g. statistical testing, data distributions, regression, modelling (desirable)  | A/I |
| Knowledge of machine learning techniques and algorithms (desirable) | A/I |
| Knowledge of data sets relating to one or more of the following; health / social services, crime, socio-economic, housing, or children’s services, demography (desirable) | A/I |
| Knowledge of data security and information governance (desirable)  | A/I |
| **Experience**  |
| Some experience of information analysis | A/I |
| Experience of presenting information in tables, charts or infographics  | A/I |
| Experience using programming skills to manage and analyse data  | A/I |
| Work within the public sector (NHS, council) structures and systems (desirable) | A/I |
| Experience conducting predictive analytics (desirable)  | A/I |
| **Skills**  |
| Good communications skills, both written and verbal | A/I/T |
| Able to engage with people partners and organisations at all levels | A/I/T |
| Conveying highly complex or sensitive material | A/I |
| Highly numerate with skills in the analysis and interpretation of data | A/I/T |
| Ability and desire learn new data extraction, management and analysis techniques, and statistical techniques to meet business needs  | A/I |
| Ability to organise and prioritise own workload, within defined requirements for the role. | A/I |
| Ability to work independently and as a member of a team | A/I |
| Data wrangling skills to extract, organized, clean and analyse messy data | A/I |
| IT literacy* Advance MS Excel skills to manage and analyse data
* Ability to effectively use MS Word and PowerPoint
* Programming skills using R or Python
* Geographic Information Systems e.g. ArcGIS, QGIS, MapInfo (desirable)
* Statistical analysis using R, SAS, STATA etc. (desirable)
* Ability to query data e.g. SQL Server (desirable)
* Familiarity with other languages e.g. HTML, JavaScript (desirable)

  | A/I/T |
| Experience with data visualizations using Tableau, Power BI, GGPlot, DE.J3 etc. (desirable)  | A/I |
| **Qualifications**  |
| Educated to degree level in mathematics, statistics, engineering, computer science, physics, data sciences, a related subject area or equivalent through work experience | A/C |

**A – Application form**

**I – Interview**

**T – Test**

**C - Certificate**