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| Job Title | Principal Data Scientist |
| Grade | A |
| Function | Advisory and Enablement |
| Job Purpose | This role is responsible for a portfolio of analytical content using AI and Data Science methods to meet CQC’s priorities. The Principal Data Scientist will lead and develop a team of data scientists. |
| Accountabilities and Responsibilities | * Lead the delivery of CQC’s AI and Data Science programme.
* Lead and develop the data science team.
* Champion data science and advanced statistics across D&I, providing advice to colleagues on the delivery of complex analytic work.
* Contribute to the development of the AI and Data science programme (led by the Practice Lead for Data Science) to drive high impact data science outcomes for CQC.
* Promote excellence and innovation in data science methods for measuring the quality of health and social care services, learning from best practice (national/international), both internally and externally.
* Assess the effectiveness of different advanced statistical and data science modelling approaches and advise data scientists on best tools and approaches to support organisational commitments.
* Role model positive behaviours and professional excellence for AI and data science, including data ethics standards and legal frameworks for data science to inform the building of models that are considerate of bias and ethical challenges.
* Manage competing demands for Data Science work within the Data & Insight unit, ensuring sufficient capacity to deliver while managing stakeholder expectations.
* Build and drive relationships internally and externally in order to deliver the AI and Data Science programme.
* Lead and facilitate multi-disciplinary teams from across the unit to deliver outcomes.
* Assure that appropriate quality control and assurance is undertaken to ensure consistency, accuracy and relevance of unit outputs.
* Role model behaviours that drive efficiency and quality through continuous improvement and effective change to deliver the Data & Insight operating model.
* Ensure that the views of the public and people using services are in the design and delivery of Data & Insight services and products.
* Promote a strong data culture across CQC in line with the organisational data strategy.
* Stay abreast of internal and external developments in data, policy and structures of care delivery.
* Role model inclusive behaviours in everyday interactions.
* Promote a culture of respect and fairness and understand personal responsibilities around delivering against CQC diversity and inclusion strategy.
* Demonstrate competence and support others to achieve behavioural excellence through our Success Profiles ([Grade A](http://intranetplus.cqc.local/Working%20for%20CQC/Performanceanddevelopment/Success%20profiles/Documents/20201027%20CQC%20Success%20Profiles%20Guide%20PDFA%20Accessible%20-%20FINAL.pdf)) ensuring yourself and those you work with are the best that they can be.
* Role model and support others to instil our values into everything that we do.
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| Skills and Experience | * Post-graduate qualification in relevant subject or has equivalent professional experience.
* In-depth understanding of a wide range of data science techniques, such as machine learning and natural language processing, and able to apply them to a variety of analytic problems.
* Previous experience in delivery of complex, advanced analytics and/or data science solutions.
* Expert working knowledge of a range of data science tools, especially Python, R, and SQL, as well as substantial experience working in cloud-based tools like Databricks for Machine Learning and Azure Machine Learning and experience helping others to use them.
* Experience of delivering Data Science models into production at scale, and collaboration with architecture and engineering teams.
* Proven experience in leading and developing data science or complex analytics teams.
* Highly skilled in ensuring implications of findings are fully understood and used appropriately.
* Proven experience in creating strong working relationships and/or networks of support.
* Strong persuading and influencing abilities.
* Excellent decision-making skills and sound judgement with minimal supervision and able to coach others to develop their decision-making skills.
* Proven experience in managing conflict and articulating coherent rationales for action.
* Proven ability to anticipate problems, know how to prevent them and understand how problems fit into the larger picture. Can also develop problem solving capabilities in others.
* Expert ability to manage stakeholder expectations and facilitate discussions across high risk and complexity or under constrained timescales.
* Proven ability to tailor the communication of insight in the most appropriate and compelling way for the audience (including large audiences), including through storytelling and visualisation and have experience in leading others to do so.

Desirable* Knowledge and understanding of the health and care sectors.
* Experience of using record-level health and care datasets.
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| Values & Behaviours**Excellence**In my work for CQC:* I set high standards for myself and others, and take accountability for results
* I am ambitious to improve and innovate
* I encourage improvement through continuous learning,
* I make best use of people’s time, and recognise the valuable contribution of others

**Caring**In my work for CQC:* I am committed to making a positive difference to people’s lives
* I treat everyone with dignity and respect
* I am thoughtful and listen to others
* I actively support the well-being of others

**Integrity** In my work for CQC:* I will do the right thing
* I ensure my actions reflect my words
* I am fair and open to challenge and have the courage to challenge others
* I positively contribute to building trust with the public, colleagues and partners

**Teamwork**In my work for CQC:* I provide high support and high challenge for my colleagues
* I understand the impact my work has on others and how their work affects me
* I recognise that we can’t do this alone
* I am adaptable to the changing needs of others
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