

IOP Institute of Physics

Job Description

Job title	Data Analyst	Grade	C
Department	Science & Innovation		
Responsible to	Data Science Manager		
Revision Date	May 2026		

Purpose of the job

The Data Analyst will be part of a small data insights team, Physics Insights, who have the technical skills and knowledge base to collate and analyse data, and work with the community to drive insights into the physics landscape. The role will support the development and implementation of processes for data extraction, cleansing, analysis and visualisation to help drive insights, working closely with the other technical members of the team to do so. The Data Analyst will also produce reports and evidence to agreed timescales.

Context of the job

Through the work of our Science, Business, and Data Insights Department, we aim to:

- Actively engage our members and the wider community to identify and gather technical expertise on the biggest opportunities, issues and developments in physics.
- Lead the development of science and business strategies and influence at the highest levels of government
- Curate strategic relationships with Businesses, Higher Education, Science & Tech Facilities and Research Funding Bodies
- Build a powerful alliance of Corporate Partners to drive science strategy, nurture talent and increase reach.
- Ensure that physics is recognised for the contribution it makes to the economy

The activities of the Data Insights team include:

- Monitoring and investigating the health of the discipline through evidence gathering and sharing, including the organisation's performance measures and KPIs
- Working in partnership with other departments to deliver high-quality physics evidence to support delivery of projects
- Collating, analysing and visualising data of relevance to the physics landscape including, but not limited to, data about physics research and investment, higher education, workforce data and use of physics related skills, physics-based business and the IOP's own membership data
- Developing workflows and databases to undertake detailed data analysis of complex data sets
- Guiding the delivery of projects supporting the IOP's strategy, ensuring robust evidence, and methodologies are used
- Providing data and insights to support requests from colleagues within the organisation
- Providing analysis of IOP owned data set including membership and Special Interest Group data, IOP Prizes and Awards data and IOP conferences data

The job will involve:

- Working with datasets to draw out insights for programmes and projects across the organisation

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- Finding, collecting, cleaning, storing, interpreting, and analysing data relating to physics
- Designing data workflows
- Providing evidence to support key projects and activities
- Ensuring that Physics Insights adheres to best practice with regards to data security
- Improving visualisation tools for the physics community
- Supporting the team's data programming and machine learning activity

Key decision-making in the job

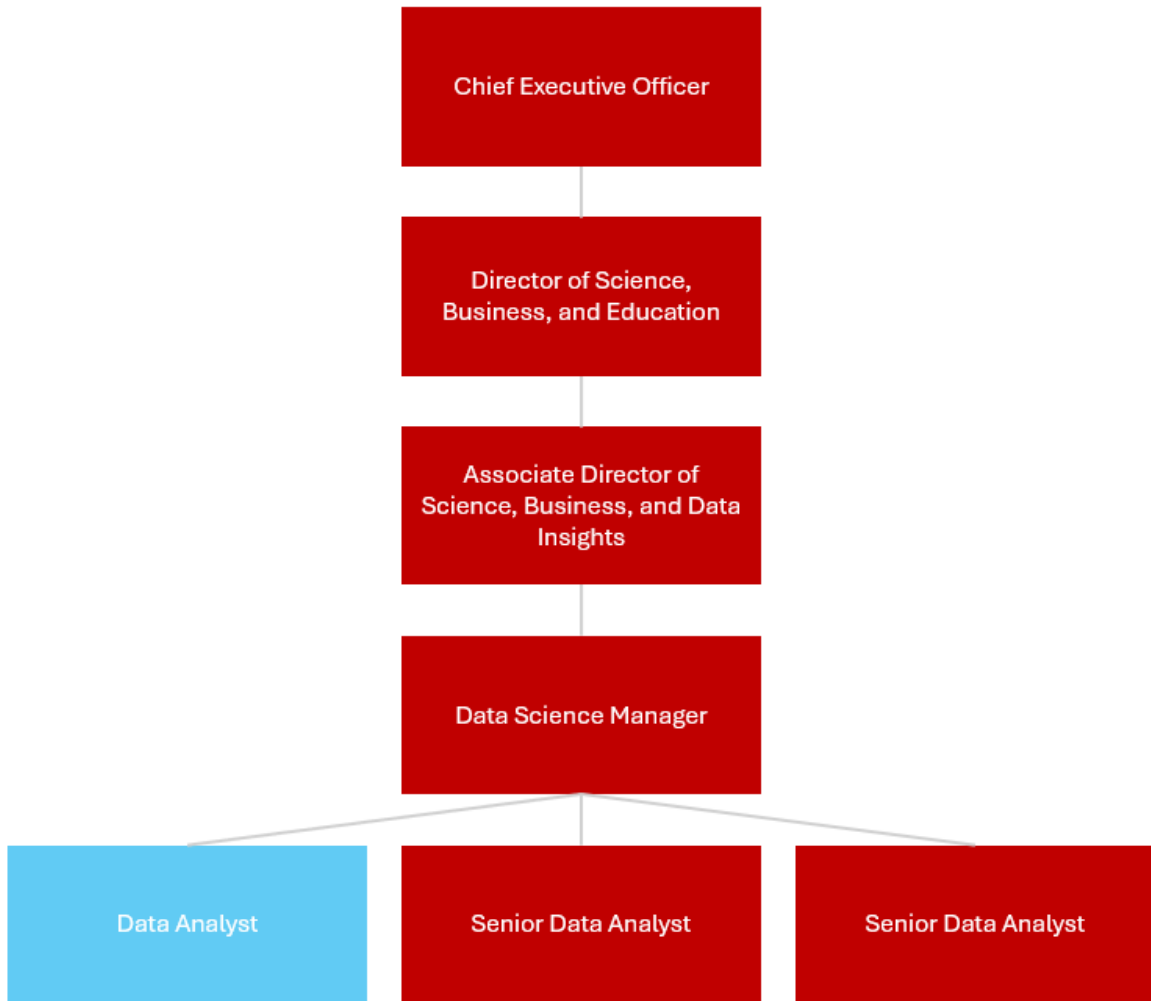
- Identification of data and messages for key projects and activities across the organisation
- Implement processes for data collection, storage and analysis
- Looking for opportunities to improve the flow of data
- Responding to specific data requests in areas covered by the team
- Cultivating an understanding of the role of physics in the research and business landscapes
- Openness to learning new skills to meet project requirements
- Ensuring project milestones and KPIs are met

Accountability of the job

- Contribute to large-scale data analytics projects
- Ensure quality assurance of our data analytics processes and projects
- Support other technical members of the Physics Insights team
- Ensure robust data security for large amounts of data, including personal information
- Risk identification and management

Organisational chart

The Institute of Physics is an open and inclusive organisation that welcomes and celebrates diversity.



Main responsibilities of the role

•	Using data analytics skills to tell compelling stories using data from multiple internal and external data sources
•	Supporting the technical work across the data team
•	Run and tweak workflows to produce data and evidence for projects
•	Implementing and driving use of an evolving range of data analytics tools and techniques, to best serve the organisation's goals
•	Making constructive suggestions on how we collect, store, and integrate data
•	Ensuring that Data Insights adheres to best practice with regards to data security and management at all stages of development
•	Producing tools that are used by the community to interpret data
•	Raising issues with data quality and promoting solutions for improvement

Person Specification

We are looking for someone who...
<ul style="list-style-type: none"> • Has a drive for results, who can be counted on to meet or exceed goals successfully • Can manage and measure work effectively, taking responsibility for tasks and decisions • Is customer focused and dedicated to meeting the expectations and requirements of internal and external customers / partners • Has great functional/technical knowledge and skills to do the job at a high level of accomplishment • Is committed to their personal learning, picking up on the need to change personal, interpersonal, and where applicable managerial behaviour quickly
Experience this person should have is...
<ul style="list-style-type: none"> • Demonstrable aptitude for working with data • Understanding of data structures and principles • Experience of converting messy information into usable data • Experience in presenting information to expert and non-expert audiences • Experience of measuring and reporting back on project targets and success criteria
Skills this person requires are...
<ul style="list-style-type: none"> • Use of software to collect, analyse and display data (we use python for data extraction and analysis, Power BI for dashboarding, and Amazon AWS and M365 for data storage and workflow automation) • Data visualisation skills • Team player – the ability to work co-operatively with others to achieve common goals • Proactive – to think ahead and act to ensure the smooth completion of team/individual aims and objectives • Dependable – ability to work with minimum supervision, prioritise workload, and handle multiple tasks to a high standard and within tight deadlines • Interpersonal skills – ability to positively communicate with others; the confidence to listen and understand • Communication skills – ability to express information clearly and effectively in written and oral form
Qualifications required are...
<ul style="list-style-type: none"> • Data analysis skills obtained through educational programs or equivalent experience – essential • Certification in python programming– desirable