IET

The Institution of Engineering and Technology

Creating a world of better opportunities

Job description

Data Engineer Architect

Hybrid - Stevenage

Permanent

Grade 10

35 Hours Per Week

Reports to: Head of Data Technology and CRM

Where the role fits

Technology – Data Technology and CRM Team

Purpose of the role

The Data Engineer Architect plays a critical role in shaping and modernising The IET's data strategy and technology landscape. Reporting to the Head of Data Technology and CRM within the Technology team, the r Data Engineer Architect is responsible for leading the evolution of data architecture, implementing best practices, and driving the adoption of Azure-based data solutions. By leveraging innovative data technologies, the Data Engineer Architect will enhance The IET's ability to harness data for strategic decision-making and operational excellence.

A key aspect of the role involves close collaboration across all teams within The IET to understand their data requirements, improve accessibility, and optimise data capabilities. With responsibility for the development and maintenance of robust data pipelines, models, and tools, the role ensures that high-quality, secure, and reliable data underpins business-critical processes.

Operating within a predominantly offshore development model, the Data Engineer Architect provides leadership and technical expertise, guiding teams in the delivery of scalable and resilient data solutions.

Our leadership charter

Leadership is important. It helps create the culture that we need to be a success – as individuals, as teams and as an organisation. As part of our framework, we have four behaviours we specifically look for in our leaders:

– **Shares vision** – by setting a clear shared vision of success for the organisation
– **Sparks engagement** – by empowering, inspiring, and developing people
– **Skilfully executes** – by setting stretching performance expectations, reviewing progress, and holding people to account to deliver planned outcomes
– **Sustains progress** – by recognising achievement and encouraging continuous improvement and experimentation

Our five behaviours

Created by our people – for our people; our behaviours underpin much of what we do and reinforce the type of organisation we want to be. They're an integral part of how our performance is managed and how we recognise great work, and map across our learning and development offering too.

You will seek to bring our behaviours to life in all that you do:

– **Include everyone**
– **Do your very best**
– **Take full ownership**
– **Work well with others**
– **Openly communicate**

Main duties and responsibilities (not necessarily in priority order)

– Lead the modernisation of The IET's data technology stack and architecture, ensuring alignment with industry best practices and strategic objectives.
– Drive the adoption of Azure data technologies, including but not limited to Fabric, Data Factory, Databricks, Synapse, and Delta Lake, to enhance data accessibility, quality, and performance.
– Develop and maintain scalable data pipelines and architectures, ensuring efficient data ingestion, transformation, and storage to support business intelligence and analytics.

- Introduce and enhance self-service reporting capabilities, ensuring secure and resilient data access for key stakeholders.
- Collaborate with analytics and business teams to enhance data accessibility and usability, enabling informed decision-making across the organisation.
- Work closely with Information Security teams to implement robust data security measures, including Data Loss Prevention tools and best practices.
- Design and implement advanced analytics and business intelligence solutions, leveraging tools such as Power BI.
- Support internal and external stakeholders by providing technical expertise and troubleshooting data-related challenges.
- Line manage and mentor junior team members, providing guidance and fostering a high-performance culture within the Data Technology team.
- Stay abreast of emerging trends and advancements in data engineering, ensuring The IET remains at the forefront of technological innovation.
- Any other duties as are reasonable as per the skill and experience of the post-holder.

The following generic responsibilities would also apply to the role. Specific responsibilities will vary depending on the department and level of seniority.

- **Deliver operational excellence:** You'll be responsible for the efficient and effective execution of day-to-day tasks and projects, ensuring they align with organisational goals.
- **Collaborate for success:** You'll work closely with colleagues across departments, fostering open communication and a collaborative environment to achieve shared objectives.
- **Support continuous improvement:** You'll actively participate in identifying areas for improvement and implementing solutions to enhance efficiency and effectiveness within your area.
- **Develop and motivate teams:** For manager roles, you'll be responsible for coaching, motivating, and facilitating the learning and development your team to achieve their full potential, fostering a positive and inclusive work environment.
- **Enhance team strengths:** You'll support your team in understanding and using their individual strengths to improve productivity and engagement, ensuring everyone can contribute effectively.

Skills and experience required

- Proven experience in a senior data engineering role, ideally as a Lead Data Engineer or equivalent.
- Extensive knowledge of the Azure analytics ecosystem, including hands-on experience with core Azure data technologies.
- Strong programming skills in C#, SQL, PowerShell, and Python, with the ability to develop scalable and efficient data solutions.
- Understanding of AI/ML implementation within an Azure environment and its application in driving data-driven insights.
- Demonstrable experience in shaping and embedding organisation-wide data strategies.
- Strong stakeholder management skills, with the ability to collaborate effectively, manage requirements, and support Agile delivery processes.
- Technical credibility and confidence in making impactful architectural and engineering decisions.
- Familiarity with governance practices, including maintaining documentation, compliance with data security standards, and ensuring best practices are upheld.
- A proactive approach to process improvement, innovation, and continuous learning.
- Certification as a Microsoft Azure Data Engineer Associate, and exposure to Power Platform and its integration with data solutions would all be advantageous.

The following generic skills and experiences would also apply to the role. Specific requirements may vary depending on the department and level of seniority.

- **Leadership and motivation:** Where required, experience in a role is demonstrating strong leadership, motivational abilities, and the ability to delegate effectively.
- **Collaborative communication:** You'll possess excellent written and verbal communication skills with a focus on active listening, clear communication, and building strong relationships with colleagues.
- **Strong organisational and time management:** You'll demonstrate excellent organisational skills with the ability to prioritise effectively, manage your workload to meet deadlines consistently, and ensure project deliverables are achieved on time and within budget.

- **Technical and operational expertise:** You'll possess a strong understanding of the relevant technical or operational area, coupled with a strategic mindset and problem-solving skills to identify and implement solutions to ensure smooth delivery.
- **Teamwork and independent work:** You'll be a strong team player with the ability to work independently and take initiative when required.
- **Promoting a positive and inclusive work environment:** You'll be passionate about creating a positive and inclusive work environment where diversity is celebrated, teamwork is valued, and collaboration thrives.
- **Proficiency in IT tools:** You'll be proficient in Microsoft Office applications and demonstrate a willingness to learn and use any applicable support systems, including CRMs and databases.

Document control

Authorised by	Job Title	Date
Head of Department / Team	JS – Chief Information Technology Officer	03.2025
Strategic People Partner	JW – Strategic People Partner	03.2025

This job description is not intended to include specific tasks, temporary activities or projects but aims to describe the overall purpose and outputs for the role and may be subject to change. Using this role profile, specific success objectives will be part of the ongoing performance conversations with your manager throughout the year.

It's the expectation that you will understand and keep up-to-date with all IET mandatory policies and appropriate training, including data protection and data handing, as well as current Health and Safety policies.