**Job Description**

**NHS Professionals Limited**

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| Job Title: Senior Data Engineer | |  |
| **Band: Level 2** |  | |
| **Location: Hemel Hampstead** |  | |

**Role summary:**

As a Senior Data Engineer at NHS Professionals (NHSP), you will be at the forefront of developing and maintaining mission-critical data infrastructure that powers efficient healthcare staffing across the NHS. This role combines technical expertise with healthcare domain impact, as you'll architect and implement data solutions that directly influence how over 180,000 bank members are deployed across NHS trusts.

Working with our modern Azure cloud platform, you'll develop sophisticated data pipelines that process and transform complex healthcare staffing data from multiple sources. Your solutions will help optimize workforce deployment, ensure compliance with healthcare regulations, and provide crucial insights for NHS staffing decisions.

You'll bring your expertise in Azure services (including Synapse Analytics, Data Factory, Databricks, and SQL Database) to design scalable, secure, and efficient data solutions. This involves not only building robust ETL/ELT processes but also ensuring they meet the stringent security and governance requirements necessary for handling sensitive healthcare data.

You'll work collaboratively with cross-functional teams, including data analysts, workforce specialists, and clinical professionals, translating complex technical concepts into accessible solutions. While this is not a team lead position, you'll have opportunities to mentor junior engineers and contribute to the technical direction of our data platform.

**Organisational Position (Illustrative):**

**Key responsibilities:**

Technical Development:

* Design and implement scalable data solutions using Azure's core services including Synapse Analytics, Fabric, Data Factory, and Azure SQL DB
* Develop end-to-end data pipelines while ensuring performance efficiency and cost optimization
* Create robust ETL/ELT processes and contribute to data mesh architecture implementation

Data Governance & Security:

* Implement data governance frameworks through Azure Purview
* Support security standards and compliance controls implementation
* Contribute to data lifecycle management and retention policies, with focus on sensitive data protection
* Help maintain audit compliance and participate in risk management activities

Development & Operations:

* Build and optimize ETL/ELT pipelines using Azure components
* Implement CI/CD practices for data infrastructure
* Contribute to automation initiatives and monitoring solutions
* Optimize data warehouse performance through monitoring and tuning

**Key accountabilities:**

Platform & Architecture:

* Support platform reliability and scalability by implementing technical solutions that align with established architecture standards
* Contribute to cloud infrastructure optimization and maintain data quality and integrity across systems
* Help meet system performance targets and SLAs through monitoring and technical improvements
* Implement and maintain data pipelines according to architectural guidelines

Governance & Security:

* Implement data protection compliance measures and security frameworks as defined by the lead architect
* Follow audit requirements and participate in risk assessments and mitigation strategies
* Create and maintain technical documentation to support governance and security protocols
* Ensure all developed solutions adhere to established security standards

Technical Delivery:

* Deliver robust technical solutions within agreed project timelines
* Contribute technical expertise to project planning and execution
* Collaborate effectively with stakeholders to understand requirements and deliver solutions
* Support service level monitoring and reporting
* Participate in code reviews and technical design discussions
* Share technical knowledge with junior team members through mentoring and documentation
* Maintain high standards of code quality and technical implementation

**Requirements:**

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| --- | --- |
| **Competency** | **Essential or Desirable** |
| Bachelor’s degree or equivalent in computing science, Mathematics, Engineering or similar subjects, with relevant certification in Azure services | Essential |
| Proven experience (4+ years) in designing and implementing data solutions using Azure services (Synapse, ADF, Databricks, SQL DB) | Essential |
| Strong proficiency in SQL, Python, Spark, and SSIS with ability to write and optimize complex code | Essential |
| Experience in data modeling, implementing data governance frameworks, and metadata management | Essential |
| Demonstrated ability to select and implement resilient, scalable data solutions with focus on performance optimization | Essential |
| Experience in CI/CD practices, infrastructure automation, and implementing automated testing frameworks | Essential |
| Strong problem-solving skills with ability to investigate and resolve complex technical issues | Essential |
| Track record of building and testing complex data products in healthcare or similar regulated environments | Essential |
| Experience with data profiling, source system analysis, and presenting technical insights to stakeholders | Essential |
| Excellent communication skills with ability to work effectively with technical and non-technical stakeholders | Essential |
| Understanding of emerging data tools and analysis techniques with focus on continuous improvement | Essential |

**Key Values:**

In addition to undertaking the duties as outlined above, the job holder will be expected to fully adhere to the following:

* **Equality and Diversity**

To act in accordance with NHS Professional’s Equality and Diversity Policy, this is designed to prevent discrimination of any kind.

* + **Health and Safety**

Ensure that all duties are carried out in line with NHS Professional’s Health and Safety Policy.

* + - **Corporate Image**

Adopt a professional image at all times.

* **Risk Management**

Responsibility for reporting complaints, incidents and near misses through the Complaints and Incidents Management System (CIMS)

Responsibility for attending health and safety training as required.

Responsibility for assisting with risk assessments.

* **Scheme of Delegation**

To comply the Scheme of Delegation this requires any employee to declare an interest, direct or in-direct, with contracts involving the organisation.

**Note:**

This job description outlines the roles, duties and responsibilities of the post. It is not intended to detail all specific tasks.

**Acceptance:**

I agree to undertake the duties of the job in accordance with the above:

###### Signed: ..…………………………………………..… (Job Holder)

Name: ……………………………………………… (Print)

Date: ……………….

Signed: …………………………………………… (Line Manager)

Name: ……………………………………………... (Print)

Date: ……………….

**NHS Professional Limited**

**PERSON SPECIFICATION**

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| --- | --- | --- | --- |
| **Job Title:** | Lead Data Engineer | | |
| **CRITERIA:** | **ESSENTIAL**  *(When applying for this job it is important you fulfil all these essential requirements. If you do not you are unlikely to be interviewed)* | **DESIRABLE**  *(When applying for this job it is desirable you fulfill these requirements. However, if you do not you may still apply and may be interviewed*) | **HOW IDENTIFIED**  A / C / I / P / R / T |
| **Qualifications & Knowledge:** | Bachelor’s degree or equivalent in computing science, Mathematics, Engineering or similar subjects, with relevant certification in Azure services |  | A/C/I |
| **Experience:** | Strong proficiency in SQL, Python, Spark, and SSIS with ability to write and optimize complex code  Proven experience (4+ years) in designing and implementing data solutions using Azure services (Synapse, ADF, Databricks, SQL DB) | Experience in deploying ML models and GenAI solutions using Azure services   * Experience working with Salesforce Data Cloud * Experience working with Tableau. | A/I/T |
| **Communication & People Skills:** | * Excellent communication skills with ability to work effectively with technical and non-technical stakeholders |  | A/I/T |
| **Organisational Skills:** | Teamwork, collaboration, financial acumen |  | A/I/T |
| **Specialist Knowledge/ Skills:** | Experience in data modeling, implementing data governance frameworks, and metadata management Superior capabilities of data modeling including cross-industry standardization and metadata management  Demonstrated ability to select and implement resilient, scalable data solutions with focus on performance optimization  Experience in CI/CD practices, infrastructure automation, and implementing automated testing frameworks  Strong problem-solving skills with ability to investigate and resolve complex technical issues  Track record of building and testing complex data products in healthcare or similar regulated environments  Experience with data profiling, source system analysis, and presenting technical insights to stakeholders  Understanding of emerging data tools and analysis techniques with focus on continuous improvement |  |  |
| **Physical Skills:** |  |  | A/I |
| **Equality:** | Commitment to promoting equality of opportunity for all, through diversity, giving everyone the chance to achieve their potential, free from prejudice and discrimination. |  |  |

Key: A = Application Form C = Certificate I = Interview P = Pre-employment health screening R = References T = Tests/presentation