

Employer: Virginia Housing Development Authority dba Virginia Housing
Position Title: Sr. Data Engineer
Location: Richmond, Virginia

I: Essential Job Functions:

Data Engineering 70%

- Design and implement scalable data pipelines and workflows in the cloud, leveraging available BI technologies.
- Develop and maintain data models, schemas, and structures for efficient data storage and retrieval, utilizing on premises and cloud native data structures, and other appropriate technologies.
- Evaluate and select cloud services and tools to meet specific data requirements, considering factors such as cost, scalability, and performance.
- Define design best practices and ensure compliance with industry standards, keeping abreast of evolving cloud offerings.
- Design, develop, and deploy ETL processes to move data between different systems and platforms, utilizing processing, algorithmic, and programming tools available in the cloud.
- Create and maintain data integration workflows, ensuring data quality and reliability through error handling and validation mechanisms.
- Implement processes and systems to monitor data quality, ensuring production data is always accurate and available for key stakeholders and business processes.
- Optimize ETL processes and pipelines for performance, reliability, and scalability, employing partitioning, parallel processing, and data compression.
- Troubleshoot/resolve data integration issues in a timely manner, collaborating with relevant teams for swift resolution.
- Assist in implementing and enforcing data security measures, including encryption, access controls, and data masking, adhering company policies and guidelines.
- Monitor and audit data access and usage to identify and mitigate potential security risks, leveraging Azure
- Monitor, Azure Sentinel, and other relevant tools.
- Assist in ensuring compliance with data privacy regulations such as GDPR, HIPAA, or industry-specific standards, working with Infosec teams.
- Implement monitoring solutions to track data pipeline performance, resource utilization, and system health.
- Identify and address performance bottlenecks through optimization and scaling strategies, collaborating with infrastructure and development teams as necessary.
- Conduct regular performance tuning activities to maintain optimal data processing speeds, staying current with Azure performance best practices and guidelines.
- Collaborate with analytics/business teams to improve data that feed business intelligence tools, increasing data accessibility, and fostering data-driven decision making across the organization.

Data Operations – 30%

- Diagnose, improve, and maintain current data eco-system and help fix and enhance existing data interfaces and integrations.
- Provide continuous support to existing data solutions, dashboards, reports, and applications.
- Broker data and related services within ITS on behalf of business customers.

- Identify, troubleshoot, and close service requests for user issues related to data, reporting, and analytics.
- Give feedback to management for process improvement and critical metrics.
- Participate in projects and QA Testing as needed.
- Assist in the overall implementation and execution of project and performance criteria as required.
- Determine required changes for tool/application upgrades and develop plan for implementation.
- Provide technical expertise and assist in maintaining or repairing business intelligence-related applications.
- Support and train users of data solutions and keep documentation up to date with any changes made.
- Monitor, keep up to date, secure the environments and defects are managed in reasonable timeframes.
- Optimize the production environment by promoting reusability, automation, consolidation and monitoring of systems, servers and tools that are supported by the team.
- Complete all production support documentation. Ensure that it is current, accurate, comprehensive, and stored for team use.
- Perform data analysis required to troubleshoot data related issues and assist in the resolution of data issues.

II: Education and Experience Required:

- Bachelor's Degree in Data & Analytics, Computer Science, Engineering, or related discipline with an information technology focus plus 6 years of experience with:
 - data systems design, development, and implementation for mid to large size organizations;
 - using Microsoft Azure data platform for engineering and deploying enterprise grade business data solutions;
 - working with ETL solutions like Microsoft SSIS to deliver complex data solutions;
 - Programmatic/Scripting/Query Languages including SQL; OR
- 8 years of experience with:
 - data systems design, development, and implementation for mid to large size organizations
 - using Microsoft Azure data platform for engineering and deploying enterprise grade business data solutions
 - working with ETL solutions like Microsoft SSIS to deliver complex data solutions
 - Programmatic/Scripting/Query Languages including SQL.

III: Special Skills Required:

- Experience with Microsoft Azure data technologies, to include data storage services, Azure Data Lake, Data Factory, Synapse Data Warehouse, Databricks, Power BI and other relevant services;
- Experience with SQL Server development technologies like Integration Services (SSIS), Visual Studio.Net language, Management Studio (SSMS);
- Knowledge of Azure Logic Apps, scripting languages like ARM, Bycep, Python, PowerShell or other custom solutions;
- Experience working with relational and non-relational databases, dimensional models, SQL queries, data warehouses, ETL processes, and database management systems.
- DevSecOps processes and Azure DevOps tools and technologies.
- Azure Monitor, Azure Log Analytics, and custom monitoring scripts.
- Knowledge of Business Intelligence concepts, solutions, and best practices.

- Data analysis skills including data cleansing and preparation, data exploration and user story maps.
- Knowledge of the assigned business area functions, systems, data, and processes.
- Experience simplifying complex concepts and presenting it to technical and non-technical audiences.

To apply for this position, please forward your resume to Humanresources@virginiahousing.com with “Sr. Data Engineer (VA- 4773)” in the subject line. No telephone calls, please.

Virginia Housing Development Authority is an equal opportunity employer.