KING COUNTY LIBRARY SYSTEM
Job Description

Title: **Data Engineer**
Dept.: **Information Technology Services**   Job Code Number: **20508**
Reports to: **Business Applications Manager**   Grade Number: **20, Non-represented**
Effective Date: **Revised August 2021**   FLSA Status: **Exempt**

General Position Summary:

The Data Engineer is a technical position that designs and develops data platform solutions. This position uses common data architecture practices to architect, design, and develop data/analytic platforms such as data warehouses and data lakes that are used to produce analytic products, including reports, dashboards, Machine Learning (ML) models, etc. Responsible to move, integrate, and clean data. Work on a highly collaborative and agile team; can break down the work from stories into tasks, identify dependencies, and test and confirm acceptance criteria of work. Work closely with ITS, Strategy, and other KCLS groups and serve as a strategic business partner with key stakeholders across KCLS.

Essential Duties/Major Responsibilities:

Any of the following duties may be performed. These examples are not necessarily performed by all incumbents, however, and do not include all specific tasks an incumbent may be expected to perform.

1. Identify and apply the appropriate tools to efficiently collect, clean, and prepare large volumes of complex data for analysis.
2. Extend existing data sources by adding attributes, mitigating data limitations, and using existing sources in ways that significantly improve results.
3. Create and maintain optimal data pipeline architecture; automate data pipelines, optimize data delivery, and streamline internal processes to provide users with reliable, efficient foundations for live business intelligence.
4. Build analytics and data tools that utilize the data pipeline to provide actionable insights into key business performance metrics.
5. Partner with KCLS stakeholder departments and business users throughout the engineering lifecycle and deliver reliable, compliant data assets that illuminate the problem areas users are striving to understand.
6. Work with stakeholders to strive for greater functionality in our data systems.
7. Ensure all systems and sources meet privacy and security policies that govern data sources, and rigorously advocate for best practices in security policies.

Secondary Duties:
1. Attend and actively participate in various KCLS meetings, committees, and groups as assigned.
2. Other related duties as assigned.

Core Competencies:

Customer Focus
Primarily focused on customer needs, able to deliver high quality, value added services. Constantly strives to find new ways to increase customer satisfaction and understanding, foster equitable services, and forge meaningful connections.

Valuing Diversity
Manages relationships with all kinds and classes of people inclusively and equitably; respects, values, and encourages the unique dimension each employee adds to the organization and each member of the community brings to the whole. Seeks opportunities to learn from differences.

Ethics, Values, and Judgement
Exercises best judgment, trustworthiness, and professional standards of conduct; consistently demonstrates organizational values, moral principles, and accountability in behavior, character and action. Defends intellectual freedom and patron confidentiality.

Professional & Technical Knowledge
Demonstrates proficiency in professional and technical skills/and or knowledge in position-related areas; purposely keeps up with current developments and trends in areas of expertise, in order to foster personal success and connections for others.

Decision Quality
Makes decisions and solves problems, can deal adeptly with varied levels of complexity, ambiguity, and risk; takes responsibility and accepts ownership for decisions regardless of outcome. Responds promptly and appropriately in crises situations.

Peer Relationships
Responds and relates well with peers/colleagues; is seen as a team player and is cooperative and collaborative; looks for common ground and solves problems for the good of all.

Organizing and Planning
Establishes courses of action for self, can influence others to ensure that work is efficient, appropriately sensitive to real restraints on time and resources. Willing to take a risk.

DESIRED MINIMUM QUALIFICATIONS

Education and Experience:

- Bachelor's degree from an accredited school with major in computer science, information systems, or related field preferred. Equivalent of full-time work experience in information systems or data engineering may substitute.
- Five or more years' data engineering or data warehousing experience.

- Two or more years' experience building cloud data solutions, such as Azure.
- Extensive experience developing data platforms including data warehouses, data lakes, ETL, or data pipelines with oversight.
- Experience with modern data architecture, ETL, ELT, scripting, data integration, Agile Development Process, DevOps, continuous integration and delivery, and release management.
- Experience with coding standards and development patterns, producing user documentation, source control, reverse engineering of ETL processes, and SQL.
- Extensive knowledge of data modeling fundamentals, data warehousing and integration architecture, quality assurance testing and validation standards, data security and privacy standards, and familiarity with project management tools.
- Knowledge of and familiarity with technologies such as SQL server, PostgreSQL, Azure data lake/warehouse/ELT products, DevOps GIT repository; scripting languages such as Python, PowerShell, C#; modeling tools such as Visio, and PowerPoint; preferred knowledge of JDE, Dayforce, Evergreen ILS, and SharePoint.

SPECIAL REQUIREMENTS

Certification in an ETL database or cloud platform.

PHYSICAL DEMANDS

While performing the duties of this job, the employee is constantly using hands in conjunction with frequent finger use and keyboarding, this computer work may be repetitive up to occasionally. Constantly sits and will seldom stand or walk. Will frequently reach up to chest level with hands and arms to work at a desk. The employee will occasionally lift to 10 pounds and seldom up to 35 pounds and seldom push/pull carts using light force.

WORK ENVIRONMENT

This position encounters new, unusual, hectic or demanding situations almost on a frequent basis. Work is performed in a normal office environment and requires a strong team orientation. Some pressure from deadlines or changing priorities exists and interruptions to workflow can occur.

Advancement Possibilities:
Business Application Manager

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between KCLS and the employee, and is subject to change as the needs of KCLS and the requirements of the job change.

Approval: _____
                Director of HR