

## **DATA ENGINEER**

**TITLE:** Data Engineer

**REPORTS TO:** Director of Data, Research and Accountability

**SUPERVISES:** N/A

**JOB FUNCTION:** Develops mission critical processes to ensure district compliance with local, state, and federal regulations and requirements; Creates and maintains requested student information system reports for school and district personnel; Leads efforts around data management, validation, storage, and collection; Increases efficient and consistent access to data by developing queries, functions, and stored procedures

### **DUTIES AND RESPONSIBILITIES:**

- Uses version control systems and documentation to maintain and distribute source code.
- Maintains business rules and technical documentation for data systems.
- Leads processes to ingest student assessment data from vendors and ensure data integrity and validity in the student information system.
- Develops reports for district and school personnel from student information system.
- Manages processes and requirements to fulfill Civil Rights Data Collection reporting requirements.
- Develops, maintains, and extends data models to store, manage, and access data efficiently.
- Works with program offices, school leaders, and IT staff to identify, specify, and manage data collection requirements and processes.
- Develop queries, functions, and stored procedures to ensure consistent and efficient data access for team members.
- Maintains knowledge of current data storage, management, and access technologies.
- Selects appropriate technologies for data storage, maintenance, and application development.
- Maintains current understanding of FERPA, HIPPA, and any/all other regulatory requirements regarding the protection of individually identifiable data.
- Develops and maintains reports in Business Intelligence platform.
- Implements Software Development Life Cycle methodologies as appropriate.
- Other duties as assigned.

### **KNOWLEDGE AND ABILITIES:**

**KNOWLEDGE OF:**

- Agile SDLC methodology.
- Developing queries, functions, and stored procedures in SQL-based relational database management systems.
- Database performance tuning.
- Data system architectures, including the use of NoSQL technologies.
- Logical and physical data modeling.
- Business Intelligence and reporting tools.
- Git and/or GitHub/GitLab.
- Data governance.
- Use of SQL for data retrieval.

**ABILITY TO:**

- Learn federal, state, and local regulatory reporting requirements for school and district accountability, assessment, and special programs.
- Learn new programming languages/techniques, computing skills, software lifecycle development, and analytical methods to develop robust, efficient, and effective workflows.
- Determine best tools and technologies to use for data management and storage.
- Help business owners define business rules and processes used to manage the data systems.
- Effectively plan workflows to meet project deadlines and milestones.
- Train others in the District in area of expertise.
- Communicate in writing and verbally to all stakeholder groups.
- Support publication of research with team members.
- Present work at professional conferences with other team members or independently.

**EDUCATION AND EXPERIENCE:**

- Minimum of a Bachelor's degree and demonstrated experience using SQL for data management and reporting. (Required)
- Bachelor's Degree or higher in a program that included significant training in information systems, data architecture, data engineering, information technology, or computer science. (Preferred)

**LICENSES AND OTHER REQUIREMENTS:**

*Original Date: Sept. 2016*