

Job Title: **Data Architect, Senior**
 Job Family: **Non-Certified**
 Pay Program: **Administrative**
 Work Year: **12 months**

Job Code: **3019**
 FLSA Status: **Ex-C**
 Pay Range: **L10**

SUMMARY: Ensures the data assets of the school district are organized into an architecture that supports the district in achieving its strategic goals. Designs and builds relational and denormalized databases for optimal data storage and transactional data processing. Develops strategies for data warehouse implementation, ETL processing, data acquisition, and archive recovery. Ensures district data asset availability using disaster recovery techniques. Evaluates new data sources for adherence to district quality standards as well as the ease of their integration with existing internal systems. Demonstrates technical expertise in a wide range of information technology concepts, best practices, and design procedures. Relies on extensive experience and judgment to plan and accomplish goals. Provides consultation on complex technical projects and is considered to be a top level contributor/specialist.

ESSENTIAL DUTIES AND RESPONSIBILITIES: *To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

Job Tasks Descriptions	Frequency	% of Time
1. Architect, build, program, debug, test and implement highly complex relational and denormalized databases for optimal data storage or transactional processing, assuring product quality and effectiveness.	D	40%
2. Develop strategies for data warehouse implementation, reporting architecture, data acquisition, ETL architecture and archive recovery. Evaluate new data sources for adherence to the district's quality standards and ease of integration.	D	20%
3. Provide consultation on complex projects and is considered to be a top level contributor/specialist. Collaborate with internal departments and internal or external clients in project design and development from start to finish. Develop and coordinate production processing schedules.	D	20%
4. Address issues of data migration and cleanliness (validation, clean-up, mapping). Analyze, diagnose, troubleshoot and design solutions to problematic programming. Ensure efficient processing of internal and external data sources.	M	5%
5. Evaluate and test new programs and data sources to ensure seamless integration with existing internal systems. Conduct system analysis and development to keep systems current with changing technologies.	Q	5%
6. Lead, coordinate and direct the work of others during project implementation.	D	3%
7. Document program, code and special instructions on procedural, modular and database level.	Q	3%
8. Develop and provide system and/or programming training for users as needed.	Q	3%
9. Perform other duties as assigned.	Ongoing	1%

EDUCATION AND RELATED WORK EXPERIENCE:

- Bachelor's degree in computer science or related degree. Four (4) additional years of similar and relevant experience may be substituted for this requirement.
- Five years or more of experience in the field or related area
- Eight years or more of experience in systems analysis, software development and programming methodologies, design and implementation

LICENSES, REGISTRATIONS or CERTIFICATIONS:

- Criminal background check required for hire.

TECHNICAL SKILLS, KNOWLEDGE & ABILITIES:

- Advanced knowledge of logical and physical data modeling and use of data modeling tools such as Analysis Server
- Proven success implementing enterprise wide reporting and analytic platforms using tools such as Reporting Services and Integration Services

- Advanced knowledge of 2-tiered and 3-tiered architectures
- Advanced knowledge of data warehousing methodologies and Data Mart Design skills
- Advanced knowledge of SQL server dialect, relational database theory ETL toolsets, and OLAP technologies.
- Advanced knowledge of Business Intelligence tools: Crystal Reports, Microsoft BI stack
- Advanced skills in development of data strategy and associated policies
- Advanced skills in SQL Server backup and recovery techniques
- Advanced knowledge of Microsoft clustering, specifically SQL Server clustering
- Expertise in troubleshooting server hardware (SAN) and software (SQL query) performance.
- Ability to troubleshoot query plans and increase efficiency of internal SQL environments.
- Advanced knowledge of SQL Profiler, server side scripts and dynamic management views.
- Strong object-oriented/object-based programming skills.
- Expertise in debugging Legacy Code
- Proficiency in a multiple and diverse programming and scripting languages with emphasis in XML, MDX, SQL, and .Net.
- Ability and willingness to learn new computer languages and technologies quickly.
- Ability to work under a formal software development lifecycle
- Demonstrates a wide degree of creativity and innovation
- Demonstrates expertise in a wide range of information technology concepts, practices, and procedures
- High level of analytical and design skills as it applies to requirements development and technical specifications
- Experienced trainer, facilitator, and course developer
- Provides excellent communication, interpersonal and documentation skills

MATERIALS AND EQUIPMENT OPERATING KNOWLEDGE:

- PC and related software applications.
- Advanced knowledge of servers, mainframes and networks.
- Familiarity with general office equipment.

REPORTING RELATIONSHIPS & DIRECTION/GUIDANCE:

	POSITION TITLE	JOB CODE
Reports to:	Administrative Data Services Executive Director	090529

	POSITION TITLE	# of EMPLOYEES	JOB CODE
Direct reports:	This job has no direct supervisory responsibilities.		

- May act as lead programmer for junior level programmers.

BUDGET AND/OR RESOURCE RESPONSIBILITY:

- This job has no budget responsibilities.

PHYSICAL REQUIREMENTS & WORKING CONDITIONS: *The physical demands, work environment factors and mental functions described below are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

PHYSICAL ACTIVITIES:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Stand		X		
Walk		X		
Sit				X
Use hands to finger, handle or feed				X
Reach with hands and arms	X			
Climb or balance	X			
Stoop, kneel, crouch, or crawl	X			
Talk		X		
Hear		X		
Taste	X			
Smell	X			

WEIGHT and FORCE DEMANDS:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3

WEIGHT and FORCE DEMANDS:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Up to 10 pounds		X		
Up to 25 pounds	X			
Up to 50 pounds	X			
Up to 100 pounds	X			
More than 100 pounds	X			

MENTAL FUNCTIONS:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Compare				X
Analyze				X
Communicate			X	
Copy		X		
Coordinate			X	
Instruct		X		
Compute				X
Synthesize				X
Evaluate				X
Interpersonal Skills			X	
Compile			X	
Negotiate		X		

WORK ENVIRONMENT:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Wet or humid conditions (non-weather)	X			
Work near moving mechanical parts	X			
Work in high, precarious places	X			
Fumes or airborne particles	X			
Toxic or caustic chemicals	X			
Outdoor weather conditions	X			
Extreme cold (non-weather)	X			
Extreme heat (non-weather)	X			
Risk of electrical shock	X			
Work with explosives	X			
Risk of radiation	X			
Vibration	X			

VISION DEMANDS:	Required
No special vision requirements.	
Close vision (clear vision at 20 inches or less)	X
Distance vision (clear vision at 20 feet or more)	
Color vision (ability to identify and distinguish colors)	
Peripheral vision	
Depth perception	
Ability to adjust focus	X

NOISE LEVEL:	Exposure Level
Very quiet	
Quiet	X
Moderate	
Loud	
Very Loud	