



Poudre School District

HUMAN RESOURCES DEPARTMENT

JOB DESCRIPTION

Job Title: **Software and Data Solutions Architect**

Job Family: **Professional**

Prepared/Revised Date: **February 25, 2025**

FLSA Status: **Exempt**

Pay Range: **A/P Schedule, Grade K**

Job Code: **38030**

SUMMARY: Responsible for helping shape and implement the technology strategy at Poudre School District by architecting and delivering innovative and scalable data, integration and systems solutions. Collaborate with applications support analysts, software engineers, data analysts, database administrators, system administrators, the enterprise architects and other stakeholders to translate business needs into technical solutions, ensuring seamless integration across technology and business systems.

Lead efforts to design custom applications and define integration strategies for the district's Student Information System (SIS) and other systems with external vendors. Provide strategic direction for the design, development, and management of the district's data warehouse, data models, and Power BI architecture to align with organizational goals and support data-driven decision-making.

The position involves working closely with cross-functional teams and stakeholders to align technical requirements, facilitate communication, and ensure the successful delivery of projects that meet organizational objectives within defined scope and timelines. Provide technical leadership, drive project goals and schedules, and address complex technical challenges to ensure the effective implementation of new systems, applications, and integrations. Champion best practices, establish standards and methodologies, and ensure effective implementation of technical solutions to address operational demands and strategic priorities. Ensure data accessibility, system interoperability, and alignment with district objectives to meet the needs of staff, students, and administrators.

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. Frequency of duties, percent of time and work year may vary based on department or building assignment. This job description is not intended to be all inclusive and the employee will also perform other reasonably related duties as assigned by the supervisor.*

1. Provide leadership in shaping and implementing the district's technology strategy by designing and maintaining innovative, scalable data, integration, and systems solutions while developing enterprise-wide architectural frameworks that support strategic goals. This includes designing, implementing, and maintaining seamless system integrations for internal applications and third-party tools, ensuring alignment with business needs, rostering requirements, and quality standards through collaboration with vendors and continuous testing, maintenance, and optimization.



2. Collaborate closely with developers to design and architect applications that integrate seamlessly with district systems, such as the data warehouse, Student Information System (SIS), and third-party vendor tools. Provide strategic guidance on best practices for ensuring scalability, security, and performance across applications. Lead the design and development of end-to-end solutions, focusing on robust system architecture and facilitating integrations that support both backend and frontend systems, including APIs. Ensure out-of-the-box solutions meet unique business needs, ensuring alignment with organizational objectives and user requirements.
3. Drive process improvement by analyzing workflows, identifying inefficiencies, implementing automation strategies, and adopting new technologies to enhance accuracy and efficiency. Additionally, oversee the optimization of processes, track system performance, and ensure that integrations align with business objectives while managing workflows, version control, and deployment pipelines to deliver streamlined and efficient solutions.
4. Design, develop, and ensure maintainability of the district's data warehouse, ensuring it supports the needs of software engineers, data analysts, and stakeholders. Design and optimize data models to support business intelligence, reporting, and analytics across the district.
5. Assist IT teams in designing and executing integration strategies between the district's SIS and external vendors, ensuring seamless data flow and minimal disruption. Develop and implement data integration workflows to synchronize information across internal systems including student information system (SIS), enterprise resource planning (ERP) and other internal and external platforms while ensuring compliance with data privacy and security regulations such as Family Educational Rights and Privacy Act (FERPA), General Data Protection Regulation (GDPR). Collaborate with software engineers and district teams to streamline data integration processes, perform problem analysis, and enhance internal application development.
6. Stay current with industry trends, emerging technologies, and best practices to drive continuous improvement in the district's IT systems. Recommend innovative solutions to enhance system performance, data accessibility, and user experience. Contribute to the development of the district's IT roadmap by helping prioritize projects and initiatives based on business needs and technological advancements. Collaborate with senior technical staff, including senior software engineers and database administrators, to research, propose, and implement architectural changes and explore new technologies for integration into the district's infrastructure.
7. Collaborate with system administrators, enterprise architect and other stakeholders to continue to design and implement effective account provisioning strategies, ensuring proper access control for users across district systems. Implement and manage identity and access management processes to provide secure access to data and applications based on user roles. Support and troubleshoot access issues, streamline account provisioning processes, and ensure alignment with district policies to maintain security and operational efficiency.
8. Engage with district stakeholders, including administrators, faculty, and IT teams, to understand business requirements and design customized technical solutions. Provide technical leadership and support to developers, data analysts, and other teams, ensuring effective collaboration and successful project delivery. Work closely with district leadership to define long-term IT strategies, ensuring alignment between business needs and technology goals.



9. Collaborate with team members to prioritize assigned projects, ensuring timely delivery of high-quality deliverables that meet requirements. Adhere to established standards and best practices throughout the project lifecycle, actively contributing to project teams to achieve overall objectives. Adapt to evolving district goals and shifting organizational priorities while providing ongoing maintenance and post-implementation support to ensure the continued functionality and success of projects.
10. Utilize strong problem-solving and analytical abilities to identify, troubleshoot, and resolve technical issues. Analyze complex systems, determine root causes, and implement effective solutions to improve performance and efficiency. Communicate effectively by translating technical concepts for non-technical audiences, collaborating across teams, and aligning solutions with business goals. Deliver consistent, quality, user support by providing consultative customer service, resolving issues efficiently, and translating technical concepts into clear, user-friendly solutions.
11. Perform other duties as assigned.

EDUCATION AND RELATED WORK EXPERIENCE:

- Bachelor's degree in computer science, information technology or related field
- Seven to ten years or more experience with software development, business solutional architecture, systems integration and data management
- Experience working in or with educational institutions or school districts is highly preferred
- Equivalent combination of education and experience acceptable

LICENSES, REGISTRATIONS or CERTIFICATIONS:

- Criminal background check required for hire

TECHNICAL SKILLS, KNOWLEDGE & ABILITIES:

- Expertise in designing and managing data warehouses, data models, and ETL processes
- Advanced knowledge of Power BI and other business intelligence tools for creating actionable insights
- Strong experience with systems integration, APIs, data synchronization, and related technologies
- Proficient in C#, HTML, CSS, JavaScript, and SQL databases/queries
- Experienced with GIT, Azure DevOps, Windows, and Linux environments
- Familiarity with Visual Studio and SQL Server Data Tools (SSDT)
- Extensive experience in developing applications within relational database environments, including designing, implementing, and optimizing complex database schemas, and writing efficient SQL queries
- Skilled in integrating databases with software applications to ensure high performance, scalability, and reliability
- Familiarity with identity and access management, security protocols, and account provisioning
- Ability to translate business requirements into technical solutions, focusing on delivering value to end-users
- Strong communication skills for collaborating with non-technical stakeholders and guiding technical teams
- Understand user requirements and adapt to a rapidly changing environment, acquiring and implementing new technologies



- Conduct research, read technical publications, and apply acquired skills
- Demonstrate strong oral, written, and English language communication skills
- Possess advanced math, organizational, and time management skills
- Provide excellent customer service in-person and over the phone
- Collaborate effectively in a team environment and work with diverse backgrounds
- Prioritize tasks, multi-task, meet deadlines, and apply new technologies as needed
- Write clear, accurate documentation for both end-users and technical audiences
- Ability to maintain honesty and integrity in all aspects of the job
- Ability and willingness to adhere to attendance requirements, including regular and punctual employee presence
- Ability to promote and follow Board of Education policies, District policies, administrative guidelines and building and department procedures
- Ability to communicate, interact and work effectively and cooperatively with people from diverse ethnic and educational backgrounds
- Ability to recognize the importance of safety in the workplace, follow safety rules, practice safe work habits, utilize appropriate safety equipment, and report unsafe conditions to the appropriate administrator

MATERIALS AND EQUIPMENT OPERATING KNOWLEDGE:

- Advanced operating knowledge of and experience with personal computers, peripherals, and media equipment
- Advanced operating knowledge of and experience with office software and equipment
- Operating knowledge of and experience with standard office equipment, such as telephones, copier, fax machine, E-mail, etc.

REPORTING RELATIONSHIPS & DIRECTION/GUIDANCE:

	POSITION TITLE	# of EMPLOYEES
Reports to:	Director IT Software Development & Support	
Direct reports:	This job has no direct supervisory responsibilities.	

- Responsible for providing guidance, direction, and training other technical staff



STANDARD PHYSICAL DEMANDS & WORKING CONDITIONS: *Poudre School District is committed to the full inclusion of all qualified individuals. As part of this commitment, Poudre School District will ensure that qualified individuals with disabilities are provided reasonable accommodations. If reasonable accommodation is needed to participate in the job application or interview process, to perform essential job functions, and/or to receive other benefits and privileges of employment, please contact ada@psdschools.org.*

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
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



MENTAL FUNCTIONS:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
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	
Moderate	X
Loud	
Very Loud	