HUMAN RESOURCES DEPARTMENT
JOB DESCRIPTION

Job Title:	**Software Engineer II**	FLSA Status:	**Classified Exempt**
Job Family:	**Information Technology**	Pay Range:	**IT99Y**
Prepared/Revised Date:	**August 1, 2023**	Job Code:	**38103**

<u>**SUMMARY:**</u> Responsible for designing, developing, testing, troubleshooting, implementing and monitoring custom software applications and integrating third-party software in a relational database environment using industry standard development tools. Develops and provides technical leadership in the software development process delivering new applications and system integration with significant technical risk. Interacts on a regular basis with other functional groups and customers on technical and/or administrative matters. Leads in the formation of project goals, scope and schedule.

<u>**ESSENTIAL DUTIES AND RESPONSIBILITIES:**</u> *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.* ***Frequency of duties, percent of time and work year may vary based on department or building assignment.***

Description of Job Tasks	**Frequency** Daily = **D** Weekly = **W** Monthly = **M** Quarterly = **Q** Annually = **A**	**% of Time** On an annual basis, e.g. 10 hours of a 40 hour work week = 10/40 = 25%
1. Design, develop, test, troubleshoot, debug and implement custom software and applications. Participate in the problem analysis in preparation for development of applications and prepare detailed specifications from which programs and integrations will be written.	D	25%
2. Implement and integrate third party software into the District infrastructure by working with vendors to perform ETL functions, deploying software and applications, developing data delivery mechanisms, and designing and implementing integrations between software systems used by the District.	D	25%
3. Lead, manage and prioritize assigned projects, actively participate on project teams and contribute to overall project team objectives; provide expertise, document processes. Track and manage changes.	D	15%
4. Advise, direct, and support colleagues with complex tasks and provide training in accordance with job related duties.	D	6%
5. Collaborate with IT teams to implement, maintain, and troubleshoot applications and system integrations for reliability, uptime, and security.	D	6%
6. Work with IT teams to review, implement, and test disaster recovery model for data and application environment.	D	5%
7. Work with customers to resolve issues and respond to suggestions for improvements/enhancements.	D	5%
8. Create, coordinate and implement database schemas with Database Administrator and development staff. Assist and serve as a backup for the Database Administrator to monitor SQL performance and database activity, maintain the SQL security model, and tune databases for performance.	D	4%
9. Research emerging technologies and incorporate into District infrastructure architecture.	D	4%
10. Attend work and arrive in a timely manner.	D	1%
11. Perform other duties as assigned.	D	4%
	TOTAL =	**100%**

EDUCATION AND RELATED WORK EXPERIENCE:
- Bachelor's degree in computer science or computer information systems
- Seven years of experience application development
- In-depth experience in developing applications in a relational database environment
- Equivalent combination of education and experience acceptable

LICENSES, REGISTRATIONS or CERTIFICATIONS:
- Criminal background check required for hire

TECHNICAL SKILLS, KNOWLEDGE & ABILITIES:
- Oral and written communication skills
- English language skills
- Interpersonal relations skills
- Strong customer service skills
- Advanced math skills
- Advanced organizational and time management skills
- Proficiency in .Net platform, web-based programming constructs, and content management system methodologies
- Ability to produce complex reports using reporting software and business intelligence tools
- Well-versed in using different operating systems including Microsoft Windows and Unix based operating systems
- Ability to deploy web applications to webservers such as apache, IIS, nginx, etc
- Advanced experience with current Object oriented programming languages and scripting languages
- Advanced experience using modern web development technologies and content management systems
- Extensive experience working with source control systems
- Extensive experience and knowledge relational databases, performing SQL queries, transact SQL and using NoSQL
- Experience with SSIS, SSRS, Windows Power Shell scripting, Crystal Reports, or equivalent, XML, and CSS
- Advanced programming skills must include VB.NET, C#, ASP.NET, HTML, CSS, PHP, DHTML, JavaScript Classic ASP, Drupal Management, Visual Source Safe, Ajax, IIS Web Deployment, and Mobile Device Development
- Advanced applications skills must include Visual Studio .NET 2005, 2008 and 2010, SQL Server 2005, 2008 and 2012, MySQL, PL/SQL, MySQL, MSSQL, Web service technology, Account Management / Security Authentication, Data Warehousing, and Business Intelligence Solutions
- Advanced ability to do online research, read and understand trade and technical publications, and apply skills acquired through such research
- Advanced ability to determine priorities, multi-task, meet deadlines, and research and apply new technologies as necessary
- Advanced ability to write clear and accurate documentation at both the end-user and the technical levels
- Ability to maintain confidentiality in all aspects of the job
- Ability to participate and work in a team environment
- 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

REPORTING RELATIONSHIPS & DIRECTION/GUIDANCE:

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

- Responsible for providing guidance, direction, and training to Software Engineer I colleagues.

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 feel				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	
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		

WORK ENVIRONMENT:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
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	