

Job Title: **Software Engineer, Senior**
 Job Family: **Non-Certified**
 Pay Program: **Administrative**
 Prepared/Revised Date: **July 2015**

Job Code: **090530**
 FLSA Status: **Ex – A**
 Pay Range: **L 04**
 Typical Work Year: **12 months**

SUMMARY: Perform complex product development in areas including design, systems analysis, implementation, and maintenance of several projects. Design, program, test, implement, troubleshoot and maintain multiple highly complex products. Create, develop and maintain data warehousing systems. Assist in product architecture. Write documentation to explain what code does to use as a reference in the production cycle, document changes, fixes and codes.

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. Design, program, test and implement highly complex programs and relational databases assuring product quality and effectiveness.	D	40%
2. Analyze, diagnose, troubleshoot and design solutions to problematic programming. Trouble shoot software and client issues.	D	30%
3. Performs programming and provides support for operating systems and database management systems.	D	10%
4. Collaborate with departments and clients in project design and development from start to finish. Develop and coordinate production processing schedules.	M	7%
5. Evaluate and test new programs to ensure logic and syntax are correct and that program results are accurate. Assist lower level programmers with programming assignments.	M	3%
6. Conduct system analysis and development to keep systems current with changing technologies.	Q	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 major. Four (4) additional years of similar and relevant experience may be substituted for this requirement.
- Minimum of three (3) years of software engineering experience.
- Minimum of five (5) years 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
- 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 tools
- Strong object-oriented/object-based programming skills.
- Expertise in debugging the Legacy Code.
- Proficiency in Visual Basic, HTML, JavaScript, XML, CSharp and .Net.
- Ability and willingness to learn new computer languages and technologies quickly.
- Ability to work under a formal software development lifecycle.
- High level of analytical and design skills for requirements development and technical specifications.
- Experienced trainer, facilitator, and course developer.
- Good communication, interpersonal skills and documentation skills.
- Ability to maintain confidentiality in all aspects of the job.

- Ability to keep up-to-date technically and apply new knowledge to your job. Includes adapting to and mastering new system applications and processes as implemented by the district or department
- Ability to promote and follow Board of Education policies, Superintendent policies, building and department procedures.
- Ability to communicate, interact and work effectively and cooperatively with all people, including those from diverse ethnic and educational backgrounds. Willingness to contribute to cultural diversity for educational enrichment.
- 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:

- PC and related software applications.
- Operating knowledge of district information technology systems and any other department specific software and equipment required within 2 months after entering position.
- 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 supervisory responsibilities.		

BUDGET AND/OR RESOURCE RESPONSIBILITY:

- None

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
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		

MENTAL FUNCTIONS:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
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	