



## Job Description

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<b>POSITION TITLE:</b>	<b>Principal Engineer CodeStack Office of the Superintendent</b>	<b>#6251</b>
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<b>SALARY PLACEMENT:</b>	<b>Senior Management Salary Schedule Range 05</b>
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### **SUMMARY OF POSITION:**

Under the general direction of the Division Director CodeStack, and the Director III, the Principal Engineer independently performs system analysis, design, programming, documentation, task implementation and program maintenance of difficult systems in a large and diverse user environment within a broad framework of standards, policies, and procedures, utilizing current techniques and methodologies.

### **MINIMUM QUALIFICATIONS-EDUCATION, TRAINING, AND EXPERIENCE:**

Possess a Bachelor's Degree with a concentration in computer-related technology and/or Business Administration, or equivalent experience in management information systems.

### **DESIRABLE QUALIFICATIONS – EDUCATION, TRAINING, AND EXPERIENCE:**

Possess a Master's Degree with a concentration in computer-related technology and /or Business Administration. Five years of experience facilitating DevOps strategy, CI/CD pipelines including configuration, development of process/tools. Have deep knowledge of toolchains to orchestrate cloud deployments; Five years of experience in cloud software architecture and development such as in Azure or AWS; five years of full-time software architecture experience using the Microsoft .NET platform as well other as scripting languages such as Node.JS; five years' experience developing web-based applications as well as micro-services.

### **KNOWLEDGE, SKILLS, AND ABILITIES:**

#### *Knowledge of:*

- assigned software
- program evaluation and data collection
- application performance monitoring and diagnostic tools to measure software performance
- client-side frameworks such as AngularJS, Angular and React
- design patterns as well as test driven development practices

#### *Ability to:*

- operate a computer
- create and follow policies and procedures
- be flexible based on program needs
- supervise, lead, and evaluate staff
- engineer robust solutions that are scalable and meet the requirements of the stakeholders and business needs
- develop architecture and design solutions specifically to support cloud such as Azure and AWS infrastructure
- build new tools or framework to support our developer platforms as well as solid understanding of DevOps theory and practice
- provision, configure, and maintain Azure cloud infrastructure through Azure DevOps or code
- manage and build solutions for web applications that uses .NET technologies such as .NET Core/5 and be able to integrate with third party services

- Manage software development teams using an Agile methodology such as SCRUM
- determine appropriate data persistence mechanisms that leverage relational and NoSQL databases

*Possess:*

- leadership skills in planning, setting agendas and coordinating/conducting meetings/trainings
- a valid California driver's license and proof of liability insurance coverage in the minimum amount required by SJCOE policy, insurable by the SJCOE carrier. Must furnish own transportation as required to fulfill job duties

**ESSENTIAL FUNCTIONS:**

Essential functions may include, but are not limited to:

1. Work effectively with school districts, community organizations, government agencies, parents, students, and/or staff.
2. Maintain confidentiality on issues concerning program and staff.
3. Supervise and evaluate staff.
4. Participate, coordinate, or conduct a variety of meetings, staff developments, committees, trainings, workshops, and/or conferences in order to present materials and information concerning department programs, services, operations, and activities; represents the SJCOE at local, regional, and state meetings, conferences, in-services, boards, councils, and events.
5. Maintain current knowledge and interpret applicable rules, regulations, policies, procedures, contracts, State and Federal laws, codes, and regulations.
6. Communicate effectively both orally and in writing.
7. Analyze situations accurately and adopt an effective course of action.
8. Establish and maintain cooperative and effective working relationships with others.
9. Work independently with little direction.
10. Meet schedules and timelines.
11. Prepare reports as needed for program.
12. Oversee and manage budgets.
13. Provide technical guidance in planning and executing assigned projects.
14. Design complex systems, detailing procedures to be followed by users; revise and create departmental forms for data processing applications or manual procedures; prepare system and data flow diagrams; translate problem statements into programming definitions. Prepare user requirements, technical specifications, and design specifications.
15. Create highly intricate programs utilizing current departmental programming techniques and standards; code and debug program; coordinate testing and data conversion.
16. Perform system repairs and oversee periodic inspection processes.
17. Assist Project Manager in project schedule preparation activities.
18. Participate in project analysis, design and implementation phases including, analyzing existing or proposed projects and requests to determine the feasibility for technical adaptation; preparing cost estimates for these proposed projects, documents and presenting written reports detailing the analysis performed.
19. Implement new and revised systems by providing training to users and staff; create and transition efficient operational procedures, including effective hardware utilization and adequate backup processes; make recommendations on technical modifications to the end user hardware and software work environment.
20. Provide support in system acceptance testing and validation activities.
21. Review and recommend improvements to existing system designs.
22. Analyze project requirements and accordingly provide technical and functional recommendations.
23. Respond to team queries and concerns in a timely fashion.
24. Schedule engineering meetings to discuss about new ideas, issues, and project status.
25. Assist in the research of new products and services that will enhance the technical productivity of the department and enable the Data Center to provide increased levels of service to the user community.
26. Responsible for training and setting standards for CodeStack Engineering Team.
27. Work with engineering team to oversee warranty reviews and product return reviews.
28. Evaluate existing engineering processes and recommend improvements.
29. Recommend new technologies to improve system performance and reliability.
30. Perform system failure analysis and provide corrective actions.
31. Other duties as assigned

**PHYSICAL REQUIREMENTS:**

Employees in this position must have the ability to:

1. Sit and stand for extended periods of time.
2. Enter data into a computer terminal, operate standard office equipment and use the telephone.
3. Hear and understand speech at normal levels and on the telephone.
4. See and read the computer screen and printed matter with or without vision aids.
5. Speak so that others may understand at normal levels to small or large groups, and on the telephone.
6. Stand, walk, and bend over, reach overhead, grasp, push, pull and move, lift and/or carry up to 25 pounds to waist height.

**WORK ENVIRONMENT:**

Employees in this position will be required to work indoors and/or outdoors in an educational and standard environment. Employees may come in direct contact with students, parents, SJCOE and school district staff, outside agency staff, and the public.

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