

SANTA CLARA COUNTY OFFICE OF EDUCATION

CLASS TITLE: DEVOPS ENGINEER

BASIC FUNCTION:

Under assigned supervision, the DevOps Engineer designs, implements, and maintains computing systems; develops scalable, reliable and performant multi-tenant application, data and system infrastructure; builds and maintains systems for automation and deployment of custom applications; creates and maintains test environments; develops logging, monitoring and alerting systems; crafts accurate and readable documentation for internal and external use; plans for high availability and disaster recovery.

REPRESENTATIVE DUTIES:

The following duties are examples of assignments performed by incumbents in this classification. It is not a totally comprehensive list of duties, nor is it restrictive regarding job assignments.

ESSENTIAL DUTIES:

Works within the data and analytics engineering and other development teams as a resident expert in the areas of cloud systems and networking within and between private and public cloud systems, including detailed implementation and troubleshooting within cloud ecosystems such as Microsoft Azure, as well as integration between different systems on disparate cloud data platforms.

Works within the agile engineering process in close collaboration with other engineering efforts necessary to deliver new or enhanced systems into production.

Leads the evaluation of new technology from a system, network integration, and future production support perspective.

Designs, implements, documents, and maintains a software-defined infrastructure.

Automates cloud native technologies, deploys applications and provisions infrastructure.

Implements and maintains the DevOps systems needed to support the agile software development and integration work, including the source control platform, continuous integration, and continuous delivery (CI/CD) workflows and tools, and automated code and configuration deployments.

Sets up the continuous integration and deployment (CI/CD) pipeline and other DevOps related solutions for full-stack cloud development using cloud-based data platform and services; sets up test and production environments; sets up code progressions tools such as GitHub.

Works with software and QA engineers to integrate automated testing; ensures code backups; automates the setup and deployment of code and systems changes to development and production environments.

Prepares solutions for production; ensures system and network configurations are well documented; ensures the implementation design includes the needed security, logging, alerting, and monitoring.

Installs, configures, maintains, and supports database systems including Microsoft SQL Server and PostgreSQL.

Monitors cloud spending to prevent budget overruns.

OTHER DUTIES:

Perform related duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Systems and networking including experience with detailed setup and integration utilizing one of the larger cloud ecosystems, e.g., Microsoft Azure (preferred), Amazon Web Services (AWS), Google Cloud (GCP).

Identity and Access Management, Virtual Private Clouds and peering, monitoring, alerting, audit logging, and hybrid cloud solutions.

Modern data platforms such as queue/messaging, data transformation services, API gateways, cloud data warehouse platforms like Snowflake, etc.

Programming languages such as Python, Java, .NET, etc.

Scripting knowledge like PowerShell, Bash, etc.

Infrastructure management tools like GitHub, Gitlab, Puppet, Chef, Ansible, Jenkins, Terraform, Maven etc.

ABILITY TO:

Perform detailed setup and integration utilizing one of the larger cloud ecosystems e.g., Microsoft Azure (preferred), Amazon Web Services (AWS), Google Cloud (GCP).

Work closely with software development teams that utilize agile software development approaches like Scrum.

Automate administration of services and manage infrastructure as a code.

Install, configure, maintain, and support database systems including Microsoft SQL Server and PostgreSQL.

Manages and deploys data pipeline and embedded BI solutions like Power BI.

Work under limited supervision with only occasional instruction and assistance.

Establish and maintain cooperative and effective working relationships with others.

Perform complex problem solving as well as critical thinking, using logic and reasoning to identify strengths and weaknesses to solutions and approaches.

Work with management, administrators, and other team members to solve complex development challenges.

Communicate effectively orally and in writing.

EDUCATION AND EXPERIENCE:

Any combination equivalent to: Bachelor’s degree in Computer Science, Information Systems or related field, and five years of increasingly responsible experience in systems administration and engineering including management of commercial, open-source and in-host developed products and services in a hybrid (private and public) cloud environment.

LICENSES AND OTHER REQUIREMENTS:

Valid California driver’s license.

Preference may be given to individuals who hold one or more of the following certifications:

- Microsoft Azure DevOps Engineer Expert
- Microsoft Azure Solutions Architect Expert

WORKING CONDITIONS:

ENVIRONMENT:

Office environment.

Driving a vehicle to conduct work.

Evening or variable hours.

PHYSICAL DEMANDS:

Hearing and speaking to exchange information and make presentations.

Seeing to read a variety of documents.

Dexterity of hands and fingers to operate a computer keyboard.

Approved by Personnel Commission: September 14, 2022



Marisa Perry
Director III – HR / Classified Personnel Services

Date: 9/14/22