California Office of Digital Innovation
Duty Statement

☐ Current   ☒ Proposed

	IT Domain: Software Engineering
Classification IT Specialist III	**Office/Department** Office of Data and Innovation
Working Title Senior Data Engineer	**Unit/Section** CalData
Position Number 374-100-1415-xxx	**Effective Date** July 1, 2022
Name Vacant	**Date Prepared** June 20, 2022

Under administrative direction from the Deputy Director of Data Services and Engineering, the Senior Data Engineer will serve as CalData's lead on data pipeline engineering. You will be a proponent for modern data stack approaches at the state. You will ensure that data is available as a service for warehouses, digital services, dashboards, etc. The Senior Data Engineer will plan, develop and document policies and best practices that departments across the state can use. You'll collaborate with CalData team members to help departments adopt modern cloud-based data practices. You'll transform your knowledge, expertise, and hands on experience into practical guidance and toolkits for the state. Duties include, but are not limited to, the following:

Essential Functions

%	Description
45%	**Build data & analytics pipelines to support data-driven work:** ● Leads production grade data pipeline engineering to develop the infrastructure and processes necessary to support data as a service, including leading the design of systems infrastructure and architecture, documenting configuration, change, release and operations aspects of the

		defined solutions, reviewing performance and security reports and modifying system to address performance, security, capacity planning and maintenance issues. ● Ensures that data is moving freely and performantly so that data is available as a service to be consumed by a warehouse, a digital service, data science model, a dashboard etc. ● Serves as the technical lead for database exports, manipulation, and procedures used to create and update data, including testing, resolving software issues, and continuously improving processes to access data as a service ● Develops automation patterns that enable legacy data systems to leverage cloud-scale analytics platforms safely and securely ● Analyzes pipeline throughput, issues, and other metrics to inform improvements to the automation platform ● Standardizes and improves existing pipelines to adhere to best practices ● Helps iterate and refine best practices ● Oversees data engineering work of external consultants to ensure alignment with business needs and CalData's overall approach as well as cohesion with state departments and stakeholders accessing data ● Advise management on formulating data engineering strategy, policy, and governance throughout the CalData program and statewide. ● Develop, plan, review, document, advise on, and communicate CalData data engineering policies, standards, guidelines, and procedures to project team members. ● Act as an expert consultant on and develop high-quality, well-tested, maintainable code across an entire data engineering lifecycle, using modern software development best practices, including continuous integration and continuous delivery.
20%		**Establish data quality and monitoring program to ensure data is trusted, secure, and reliable:** ● Develops and documents patterns and practices for CalData and ODI's data quality program to help ensure all data is profiled, reviewed, and accurate to support critical decisions ● Develops and maintain documentation so all CalData team members know their roles and responsibilities in meeting data quality metrics ● Determines and establish data quality metrics and data quality alerting system ● Templatizes process for sharing and replication by other departments
20%		**Identify, build out, and support data engineering platforms and approaches to support work of CalData and ODI** ● Collaborates with Analytics Engineer and data services lead, selects and implements data engineering platforms to support ODI initiatives according to collaboratively developed criteria and business needs.

	● Collaborates with Data Services lead, to guide and implement architectural improvements to the data infrastructure. ● Supports the Analytics Engineer in identifying and implementing modeling approaches and methods ● Works with Analytics Engineer, to evolve our Continuous Integration/Continuous Delivery strategy on the data team's code base including instrumenting robust monitoring, altering and recovery
10%	**Spread modern data engineering patterns and tools across the state via consulting engagements:** ● Serves as a consultant and advisor on data engineering tools and practices across the state. ● Conducts presentations to share documented patterns and best practices utilized by CalData across the State through a variety of forums including communities of practice ● Partners with CalData Data Programs and Policy team and ODI CalAcademy to help develop toolkit and identify trainings to facilitate adoption of data quality and data engineering patterns by departments
5%	**Advise on data engineering requirements and needs as part of project solicitation, vetting, and scoping processes.**

Supervision Received
The Senior Data Engineer will report to the Deputy Chief Data Officer.

Supervision Exercised
None, however, provides technical and project management leadership to teams within the department as well as external stakeholders, and has defined responsibility and authority for decision making related to projects, or in an advisory function.

Working Conditions
The employee regularly works in an indoor and climate-controlled office setting under artificial light. The employee's workstation is located in Sacramento, CA, and is equipped with standard or ergonomic office equipment, as appropriate. Based on departmental or operational needs, work can be performed remotely. The employee can work from anywhere within California. Occasional travel may be required to attend offsite meetings, conferences, and training classes. May sit for an extended period using a keyboard and video display terminal. On occasion, may require flexible work schedules, including some evening hours to complete assignments, meet deadlines, and provide support to the Directorate.

Attendance
Must maintain regular and acceptable attendance at such a level as is determined at ODI's sole discretion. Must be regularly available and willing to work the hours the department determines are necessary or desirable to meet its business needs.
I have read and understand the duties listed above and I can perform these duties with or without reasonable accommodation. *(If you believe reasonable accommodation is necessary, discuss your concerns with the hiring supervisor.)

A Reasonable Accommodation is any modification or adjustment made to a job, work environment, or employment practice or process that enables an individual with a disability or medical condition to perform the essential functions of their job or to enjoy an equal employment opportunity.

Duties of this position are subject to change and may be revised as needed or required.

Employee Signature	Employee Printed Name	Date

I have discussed the duties of this position with and have provided a copy of this duty statement to the employee named above.

Supervisor Signature	Supervisor Printed Name	Date