

DUTY STATEMENT

Employee Name:	Position Number: 580-151-1414-024
Classification: Information Technology Specialist II (Software Engineering)	Tenure/Time Base: Permanent/ Full Time
Working Title: Senior Data and Analytics Engineer	Work Location: 1616 Capitol Ave., Sacramento, CA 95814
Collective Bargaining Unit: R01	Position Eligible for Telework (Yes/No): Yes
Center/Office/Division: Information Technology Services Division	Branch/Section/Unit: Enterprise Architecture Services Section/ Enterprise Data and Analytics Services Unit

All employees shall possess the general qualifications, as described in California Code of Regulations Title 2, Section 172, which include, but are not limited to integrity, honesty, dependability, thoroughness, accuracy, good judgment, initiative, resourcefulness, and the ability to work cooperatively with others.

This position requires the incumbent to maintain consistent and regular attendance; communicate effectively (orally and in writing) in dealing with the public and/or other employees; develop and maintain knowledge and skill related to specific tasks, methodologies, materials, tools, and equipment; complete assignments in a timely and efficient manner; and, adhere to departmental policies and procedures.

All California Department of Public Health (CDPH) employees perform work that is of the utmost importance, where each employee is important in supporting and promoting an environment of equity, diversity, and inclusivity, essential to the delivery of the department's mission. All employees are valued and should understand that their contributions and the contributions of their team members derive from different cultures, backgrounds, and life experiences, supporting innovations in public health services and programs for California.

Competencies

The competencies required for this position are found on the classification specification for the classification noted above. Classification specifications are located on the [California Department of Human Resource's Job Descriptions webpage](#).

Job Summary

This position supports the California Department of Public Health's (CDPH) mission and strategic plan by creating customer focused solutions that are responsive and agile; supporting a modern infrastructure, tools, architecture, and standards; to effectively provide efficient services following service level agreements. The Information Technology Services Division (ITSD) leverages data and technology to create sustainability across CDPH by creating efficient solutions that meet customer expectations and reduce waste. As well as, creating innovative solutions, strengthening partnerships and collaborations, and embracing technology.

Under general direction of the Information Technology Manager (ITM) I, Chief, Enterprise Data and Analytics Services Unit (EDASU), the Information Technology Specialist (ITS) II, working in a senior or lead capacity, performs data engineering functions such as data administration, pipeline development, data architecture, and database development as well as providing systems administration functions on various data tools and platforms in cloud and on-premises environments. The ITS II works with minimal guidance on a wide variety of the most complex tasks to strategize, plan, advise, and develop data solutions; and mentors, leads, and reviews work of ITS I staff.

The ITS II performs duties within the Software Engineering, Systems Engineering and Information Technology Project Management domains.

Special Requirements

- Conflict of Interest (COI)
- Background Check and/or Fingerprinting Clearance
- Medical Clearance
- Travel:
- Bilingual: Pass a State written and/or verbal proficiency exam in
- License/Certification:
- Other: Occasionally provides after hours, weekend, and holiday support as necessary.

Essential Functions (including percentage of time)

25% Maintains expert working knowledge of industry technologies, best practices, and trends; makes recommendations to management on the adoption of new tools, platforms, processes, and procedures to improve operational efficiencies. Designs, configures, and manages standards of requirements for project plans for information technology projects, while ensuring adherence to budget, schedule, and scope. Reviews software architecture and makes recommendations regarding technical and operational feasibility. Conducts security analyses, and reports statuses to leadership; performs risk assessments and recommends information technology (IT) solutions on CDPH information security processes; analyzes incident-related data and determines the appropriate response; develops implementation plans including cost-benefit or return on investments. Writes technical documentation/end user training of complex systems, processes, and procedures with sufficient detail to enable other technical staff to support and maintain systems. Provides high-level technical expertise, leadership, communication, and mentoring support to project team members, technical staff, vendor consultants, and program customers aligning with technological modernization strategies in support of CDPH programs.

25% Acts as lead, providing advanced data engineering expertise across CDPH projects and initiatives. Designs, develops, optimizes, tests, and maintains scalable batch and real-time data pipelines, including streaming and event-driven processing. Implements Extract, Transform, Load (ETL) and Extract, Load, Transform (ELT) processes using modern cloud-based data platforms and distributed processing frameworks.

Designs and delivers reusable, governed data products and implements API-based and data service interfaces to support secure and scalable data sharing across internal and external partners. Applies DataOps practices including continuous integration and continuous

deployment (CI/CD), automated testing, version control, and monitoring of data workflows.

Develops and enforces data quality standards, validation frameworks, and automated data quality checks to ensure high-quality, trusted data assets. Supports advanced analytics, reporting, and machine learning initiatives by preparing and optimizing data for enterprise use.

25% Acts as lead in administering and engineering enterprise data platforms across cloud and hybrid environments. Configures, manages, and optimizes data platforms, tools, and environments to support scalable data processing and analytics workloads.

Implements secure data access models, role-based access controls, and data protection mechanisms aligned with CDPH data governance and compliance requirements. Establishes and maintains monitoring, observability, and alerting frameworks to ensure reliability, performance, and availability of data systems.

Troubleshoots and resolves production issues, performs performance tuning, and develops automation and operational runbooks. Ensures adherence to State security, privacy, and compliance standards, including HIPAA requirements where applicable.

20% Acts as lead Data Architect on CDPH projects and initiatives. Designs and implements modern enterprise data architectures, including data lakes, lakehouse environments, and domain-oriented data models that support enterprise reporting, analytics, and operational use.

Designs and implements interoperable data exchange solutions using APIs and industry standards such as HL7 and FHIR to support public health data sharing across internal and external partners. Collaborates with cross-disciplinary IT teams, business stakeholders, and subject matter experts to deliver integrated and scalable data solutions.

Implements and enforces data governance practices including metadata management, data lineage, data cataloging, and master data management (MDM). Ensures data solutions align with enterprise standards, promotes reuse, and supports long-term sustainability while advancing equitable access to data.

Marginal Functions (including percentage of time)

5% Performs other job-related duties as assigned.

I certify this duty statement represents an accurate description of the essential functions of this position. I have discussed the duties and have provided a copy of this duty statement to the employee named above.

I have read and understand the duties and requirements listed above and am able to perform these duties with or without reasonable accommodation. (If you believe reasonable accommodation may be necessary, or if unsure of a need for reasonable accommodation, inform the hiring supervisor.)

Supervisor’s Name:	Date	Employee’s Name:	Date
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Supervisor's Signature	Date	Employee's Signature	Date
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HRD Use Only:

Approved By: D.S.

Date: 4/22/26