

## DUTY STATEMENT

Employee Name:	Position Number: <b>580-150-1402-030</b>
Classification: Information Technology Specialist I (Systems Engineering)	Tenure/Time Base: Permanent/ Full Time
Working Title: 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 & 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 direction of the Information Technology Supervisor (IT Sup) II of the Enterprise Data and

Analytics Services (EDAS) Unit, the Information Technology Specialist (ITS) I performs data engineering functions such as data administration, pipeline development, data architecture, and database development. The ITS I also provides systems administration functions on various data tools and platforms in cloud and on-premises environments.

The ITS I performs duties in the Software Engineering and Systems Engineering 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:

### **Essential Functions (including percentage of time)**

25% Performs studies and research analysis related to technology projects; provides information technology (IT) consultation in support of business programs; coordinates and consults with users, administrators, and engineers to identify business and technical requirements; develops and sustains cooperative working relationships with project stakeholders; identifies infrastructure system requirements and recommends technology standards and methods to support organizational needs. Conducts research and performs analysis to recommend system upgrades, cost-effective solutions, and process improvements; troubleshoots, tracks, and conducts root-cause analysis of system/database/operational issues. Acts in a leadership role and demonstrates technical versatility for lower-level staff aligning with technological modernization strategies in support of CDPH programs.

25% Provides working data engineering knowledge to various CDPH projects and initiatives, providing guidance on data acquisition, storage, structure, and retrieval. Designs, develops, reviews, optimizes, tests, and troubleshoots software code to process data using various development languages, data and analytics platforms, and development environments. Designs, builds, reviews, optimizes, tests, and troubleshoots data pipelines and Extract, Transform, Load (ETL) functions using various software development languages and low-code tools. Gathers, reviews, analyzes, and documents requirements and specifications to ensure data solutions satisfy functional and non-functional requirements. Designs, develops, and implements various data quality standards, procedures, and cleansing processes to maintain high quality data repositories to be used by business customers for data analysis, machine learning, data mining, modeling, and other related functions. Researches, evaluates, tests, compares, and recommends various software products and platforms, development languages and tools, and solutions for processing, organizing, storing, manipulating, and sharing data resources. Implements, configures, and utilizes source control systems to ensure the security and orderly deployment of software development assets. Learns new technologies as necessary to provide original solutions to customer data problems. Implements all phases of the software development lifecycle (SDLC) to produce efficient and effective software solutions to data problems.

25% Provides systems administration to various CDPH data products and platforms. Designs, documents, and implements security models and standards to secure data assets, complies with department standards, and provides access in coordination with department data governance standards. Configures applications, software development tools, and other systems as necessary, to support the processing, storage, and sharing of data assets. Provides technical support for applications and data analytics platforms to customers, vendors, and partners. Creates network, data flow, architecture, and other various technical diagrams to communicate technical specifications to cross disciplinary information technology teams. Monitors and resolves issues with production systems, jobs, and workflows to quickly overcome failures and ensure high availability of such systems. Develops processes and guidelines for monitoring system performance, availability, and capacity to prevent and respond to issues that negatively impact system availability. Manages, installs, updates, and configures software. Ensures CDPH security and data privacy standards are enforced. Occasionally provides after hours, weekend, and holiday support as necessary.

20% Participates in CDPH projects and initiatives as a Data Architect and provides project teams with guidance on activities related to data models, data design, analytics, and standards. Designs, reviews, and implements enterprise databases, data lakes, data models, and data architectures using current industry best practices and standards to support the retrieval, storage, organization, distribution, access, and sharing of data assets and data products to various consumers and platforms. Reviews, evaluates, contributes to, and implements data governance standards across all enterprise data products and processes to maintain data quality and ensure compliance. Collaborates with cross disciplinary IT teams, business stakeholders, and subject matter experts to design, develop, coordinate, integrate, test, and implement complete data solutions for customers. Coordinates with cross disciplinary IT teams and designs and documents network and integration solutions to connect various data sources and platforms across cloud and on-premises systems within local networks and extranets.

#### **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
Supervisor's Signature	Date	Employee's Signature	Date

#### **HRD Use Only:**

Approved By: D.S.

Date: 10/6/25