

State of California
GOVERNOR'S OFFICE OF EMERGENCY SERVICES
POSITION DUTY STATEMENT
BU: 1, 4, 9, 10, 11, 12 & 14

EMPLOYEE:	CLASSIFICATION: Information Technology Specialist II WORKING TITLE: Analytics Engineer	HEADQUARTERS: Mather Campus
PROGRAM/UNIT: Office of Policy & Administration/ Information Technology/ Enterprise Data & Technology Services/ Data & Analytics	POSITION NUMBER: 163-164-1414-002 (11671)	CBID: R01
TENURE: Permanent	TIME BASE: Full- Time	WORK WEEK GROUP: E
APPT EFFECTIVE DATE:	RANGE (IF APPLICABLE): N/A	PROBATIONARY PERIOD: ☐ 6 Mos. ☒ 12 Mos. ☐ N/A
IMMEDIATE SUPERVISOR: Information Technology Manager I	CONFLICT OF INTEREST CATEGORY: ☒ Yes ☐ No	DMV PULL PROGRAM: ☐ Yes ☒ No

1. SUPERVISION RECEIVED:
The Information Technology (IT) Specialist II, Analytics Engineer, is under the general direction of the Data & Analytics Manager, IT Manager I.

2. SUPERVISION EXERCISED:
This level does not supervise but may lead.

3. PHYSICAL DEMANDS (SEE ADDITIONAL PAGES):
Physical tasks include sitting for extended periods at a computer workstation with artificial light and temperature control in an office setting. The incumbent will work a minimum of 40 hours per week, with the possibility of overtime in an emergency. The ability to use a personal computer and telephone is essential, as most work utilizes these tools. Travel in automobile, commercial aircraft, and public transportation. Must be able to lift computer equipment and related items that weigh up to 50 pounds.

4. PERSONAL CONTACT (WHO THE EMPLOYEE MAY BE IN CONTACT WITH WHILE PERFORMING DUTIES):
Direct contact with California Governor's Office of Emergency Services (Cal OES) executive staff, department managers and supervisors, employees of Cal OES, other state agencies, and the federal government to provide technical information to solve IT problems, discuss operational or business needs and systems requirements. This position may liaison with outside contractors and vendors providing goods or services to Cal OES. Direct contact with the Department of Technology to report on the regular status and IT reporting requirements.

5. ACTIONS AND CONSEQUENCES (AS RELATED TO DUTIES PERFORMED):
Cal OES is responsible for disaster response, planning, preparedness, and training. This position holds a high-level responsibility for the security and integrity of publicly displayed information. Failure to effectively perform the position duties could result in loss of critical information for the mission and the organization.

6. EMERGENCY OPERATIONS – ACTIVATION/OPERATIONAL ASSIGNMENT 100%:

When requested to fill an operational assignment and until demobilized, the following duties will be performed and your regular duties may temporarily cease:

May be required to work in the State Operations Center (SOC), Regional Emergency Operations Center (REOC), Joint Field Office (JFO), Area Field Office (AFO), Local Assistance Center (LAC), other location to provide assistance in emergency response and recovery activities. All staff is required to complete operational related training and participate in one of three Readiness Teams that rotate activation availability on a monthly basis if not assigned to an Operational Branch (e.g., Fire/Law/Region/PSC Operations (Technicians)/PSC Engineering (Engineers)). May be required to participate in emergency drills, training, and exercises.

Staff need to work effectively under stressful conditions; work effectively & cooperatively under the pressure of short leave time; work weekends, holidays, extended and rotating shifts (day/night). Statewide travel may also be required for extended periods of time and on short notice.

While fulfilling an operational assignment it is important to understand that you are filling a specific "position" and that position reports to a specific Incident Command System (ICS) hierarchy. This is the chain of command that you report to while on this interim assignment.

On Call/Standby/Duty Officer (if applicable)

If assigned on-call, standby or as a Duty Officer, you are required to be ready and able to respond immediately to any contact by Governor's Office of Emergency Services (Cal OES) Management (including contact from the State of California Warning Center) and report to work in a fit and able condition if necessary as requested.

7. JOB DESCRIPTION/GENERAL STATEMENT:

Under the general direction of the IT Manager I, the IT Specialist II serves as the Analytics Engineer responsible for the design, development, implementation, and continuous improvement of enterprise analytics solutions that transform data into actionable intelligence for emergency management operations. The Analytics Engineer combines advanced data analysis, analytics engineering, data governance, and modern data platform capabilities to deliver trusted, Artificial Intelligence (AI)-ready data products that support strategic and operational decision-making across the department.

The Analytics Engineer designs, develops, and maintains enterprise data pipelines, analytics solutions, semantic data models, and reporting platforms while ensuring data quality, governance, security, and accessibility. The incumbent will serve as a technical advisor to program stakeholders, IT teams, and leadership by translating business requirements into scalable data and analytics solutions that support disaster preparedness, response, recovery, mitigation, and administrative operations.

In alignment with our commitment to diversity, equity, inclusion, and accessibility, all Cal OES employees are encouraged to promote and foster an equitable and inclusive workplace environment.

Percent of Time	ESSENTIAL FUNCTIONS
35%	ANALYTICS ENGINEERING AND DATA SOLUTION DEVELOPMENT • Performs technical and analytical research to support the development, documentation, and delivery of analytics solutions for the emergency management lifecycle. • Design, develop, and optimize scalable data pipelines supporting enterprise analytics. • Build and maintain curated data models, semantic layers, and reusable analytical datasets. • Develop automated workflows that ingest, cleanse, transform, validate, and publish structured and unstructured data. • Engineer scalable data architectures supporting cloud, hybrid, and on-premises environments. • Develop data marts and analytical models supporting emergency management operations. • Build and optimize Structured Query Language (SQL) queries, stored procedures, Application Programming Interfaces (APIs), and automation scripts. • Design solutions that improve query performance, scalability, reliability, and operational efficiency. • Integrate multiple enterprise systems and external data sources into unified analytics platforms. • Support modern data warehouse and data lake architecture. • Produce well-documented, tested, version-controlled, and reusable analytics assets.
30%	CONSULTING AND DATA GOVERNANCE • Collaborates closely with program stakeholders to establish and maintain cooperative relationships, providing consultative advice on business requirements and processes for emergency management analytics solutions. • Support the development and implementation of enterprise data governance standards, policies, and best practices. • Establish data quality frameworks including validation, monitoring, lineage, metadata, and stewardship. • Collaborate with enterprise architects and Data Center of Excellence to define enterprise data standards and reference architectures. • Evaluate legacy systems and recommend modernization strategies. • Develop technical specifications based on business requirements. • Advise IT leadership regarding enterprise analytics strategy, emerging technologies, AI readiness, and data modernization initiatives. • Collaborate with data stewards, product owners, business units, and technology teams to improve enterprise data quality and management. • Support Master Data Management (MDM) initiatives and enterprise metadata management. • Promote data literacy, governance, and analytics enablement through workshops, documentation, governance forums, and communities of practice. • Recommend technologies, tools, and architectural improvements supporting enterprise analytics capabilities.
20%	ADVANCED ANALYTICS, BUSINESS INTELLIGENCE, AND AI ENABLEMENT • Analyze large, complex datasets using statistical and analytical techniques. • Develop dashboards, operational reports, and interactive visualizations. • Translate business questions into analytical models and technical solutions. • Deliver real-time situational awareness products supporting emergency operations.

	• Collaborate with business stakeholders to identify opportunities for predictive analytics and AI-enabled decision support. • Prepare enterprise datasets suitable for machine learning and generative AI applications. • Partner with data analysts and engineers to operate predictive models and analytical workflows. • Identify trends, anomalies, and emerging risks through advanced analytics. • Present analytical findings and recommendations to leadership and program stakeholders using clear, concise communication.
10%	PLATFORM ADMINISTRATION AND MONITORING • Monitor analytics platform health, performance, and reliability. • Troubleshoot complex data integration, reporting, and pipeline issues. • Implement automated monitoring, alerting, testing, and quality assurance processes. • Manage source control, deployment processes, and technical documentation. • Evaluate emerging analytics, cloud, AI, and automation technologies for enterprise adoption. • Recommend process improvements that increase operational efficiency and reduce technical debt.
Percent of Time	MARGINAL FUNCTIONS
5%	Other Job-Related Duties as Required The incumbent will perform other job-related duties as required to fulfill the Cal OES mission, goals and objectives. Additional duties may include but not be limited to: assisting where needed within the program, which may include special assignments; complying with general State and Cal OES administrative reporting requirements (i.e. completion of time sheets, Empower time reporting, travel requests, travel expense claims, work plans, training requests, individual development plans, etc.); and attendance at staff meetings.

PHYSICAL AND MENTAL REQUIREMENTS OF ESSENTIAL FUNCTIONS					
Activity	Not Required	Less than 25%	25% to 49%	50% to 74%	75% or More
VISION: Reviewing mail; preparing various forms; proofreading documents; reading printed material, computer screens, and handwritten materials.	☐	☐	☐	☐	☒
HEARING: Answering telephones; receiving verbal information from outside sources; understanding verbal instruction.	☐	☐	☐	☐	☒
SPEAKING: Receiving visitors; answering inquiries and providing verbal information or instruction.	☐	☐	☐	☐	☒
MOVEMENT: Delivering material to others; picking up materials from others; copying; faxing; distributing information; filing.	☐	☐	☐	☒	☐
SITTING: At a computer terminal or desk; conferring with employees.	☐	☐	☐	☐	☒
STANDING:	☐	☒	☐	☐	☐
BALANCING:	☒	☐	☐	☐	☐
CONCENTRATING: Reviews and reads records/documents, researches, composes, analyzes, compiles, and updates technical documents; multi-tasking; prepares various forms and documents.	☐	☐	☐	☐	☒
COMPREHENSION: Understanding needs of co-workers, clients; understands procedures and practices; Understands laws, regulations related to their work.	☐	☐	☐	☐	☒
WORKING INDEPENDENTLY: Possesses ability to work independently as well as a team member, have good interpersonal and communication skills, ability to follow directions, take initiative, assume responsibility, and exercise good judgment and tact. Must be able to work alone without much guidance or interaction or interaction from other staff.	☐	☐	☐	☐	☒
LIFTING UP TO 10 LBS. OCCASIONALLY:	☐	☒	☐	☐	☐
LIFTING UP TO 20 LBS. OCCASIONALLY AND/OR 10 LBS. FREQUENTLY:	☐	☒	☐	☐	☐
LIFTING UP TO 20-50 LBS. OCCASIONALLY AND/OR 25-50 LBS. FREQUENTLY:	☐	☒	☐	☐	☐
KEYING: Pushing buttons on telephone; typing; copying.	☐	☐	☐	☐	☒

PHYSICAL AND MENTAL REQUIREMENTS OF ESSENTIAL FUNCTIONS					
Activity	Not Required	Less than 25%	25% to 49%	50% to 74%	75% or More
REACHING: Answering phones.	☐	☐	☒	☐	☐
CARRYING: Distributing mail; reports; stocking supplies.	☐	☒	☐	☐	☐
CLIMBING: Stairs	☐	☒	☐	☐	☐
BENDING AT WAIST:	☐	☒	☐	☐	☐
KNEELING:	☐	☒	☐	☐	☐
PUSHING OR PULLING:	☐	☒	☐	☐	☐
HANDLING: Documents, manuals	☐	☒	☐	☐	☐
DRIVING:	☒	☐	☐	☐	☐
OPERATING EQUIPMENT: Computer; telephone; copy machine; fax.	☐	☐	☐	☐	☒
WORKING INDOORS:	☐	☐	☐	☐	☒
WORKING OUTDOORS:	☐	☒	☐	☐	☐
WORKING IN CONFINED SPACE: Enclosed office environment.	☐	☐	☐	☐	☒

OTHER INFORMATION

Must have knowledge of the state and related federal laws, rules, regulations, policies, and procedures. Must exercise good writing skills; follow oral and written directions, be responsive to the needs of the public and employees of Cal OES and other agencies; analyze situations and take effective action using initiative, resourcefulness, and good judgment. May need to work with limited supervision.

Consistent with good customer service practices and the goals of the Cal OES Strategic Plan, the incumbent is expected to be courteous and provide timely responses to internal and external customers, follow through on commitments, and solicit and consider internal and external customer input when completing work assignments.

SIGNATURES

Certification of Applicant/Employee

Note – If any concerns with performing the duties of this position with or without reasonable accommodation, discuss your concerns with the hiring supervisor, who in turn, will discuss with the Reasonable Accommodation Coordinator.

I certify that I possess essential personal qualifications including integrity, initiative, dependability, good judgment, and ability to work cooperatively with others; and a state of health consistent with the ability to perform the assigned duties as described above with or without reasonable accommodation.

I have read and discussed these duties with my supervisor:

Employee's Signature

Date

I certify that the above accurately represents the duties of the position:

Supervisor's Signature

Date

Civil Service Title