

**SUPERVISOR:** DIV CHIEF RM & ACC  
**DIVISION:** RISK MANAGEMENT & ACC  
**EFFECTIVE DATE:** March, 2021  
**FLSA STATUS:** N-EXEMPT  
**EXTERNAL**

# WEST METRO FIRE RESCUE DATA ENGINEER / ANALYST



## **NATURE OF WORK**

The data engineer / analyst is primarily responsible for the fulfillment of West Metro Fire Protection District (District) analytics and application programming interface needs. This includes building, automating, and maintaining data pipeline architecture for all district systems, including replication of transactional and operational data to centralized infrastructure; data modeling, analysis, and reporting; and integration of technology. The position develops and maintains information visualization tools; and identifies, designs, and implements infrastructure solutions driving continuous improvement for District operational and administrative functions.

This position reports to the risk management and accreditation chief and collaborates with the information technology (IT) division on a regular basis.

## **ESSENTIAL DUTIES**

Fulfill the District's analytics needs through data interpretation; present findings by creating charts, graphs, tables, and dashboards reflecting District outcomes and performance.

Align IT and data architecture with the District's strategic goals.

Conduct research and development in assigned areas, including analyzing emergency response performance data and information using SQL, Python, and Tableau; completing reports and presentations related to emergency and non-emergency response activity.

Assisting in administrative areas such as performance measurements, cost allocations, budget development, expenditure tracking, staffing analysis, and surveys.

Create, automate, and maintain optimal data pipeline architectures.

Integrate large, complex data sets into the District's cloud infrastructure and across organizational functions.

Design and build data lake/data warehouse infrastructure.

Build and support APIs to effectively extract, transform, and load business data into various systems to facilitate critical business processes.

Identify, design, and implement infrastructure improvements by automating manual processes and optimizing infrastructure for greater scalability and performance.

Document technical design specifications for applications such as data management plans or process maps.

Utilize data pipelines to provide actionable insights and predictive analysis for response performance, continual improvement, and accreditation.

Communicate findings to management, district personnel, agency stakeholders, citizens, and other officials.

Prepare reports and update dashboards to provide near real time data analytics for use and viewing by all divisions.

## **ESSENTIAL DUTIES CONTINUED**

Perform District liaison functions with data consultants to fulfill the District's needs.

Participate in the processes of strategic planning teams, provide guidance and expertise on system options, risk, impact and costs vs. benefits, create and share operational requirements and development forecasts to allow for timely and successful execution of projects.

The above listed essential duties are not an all-inclusive list; this person will have other duties assigned to meet District needs and priorities.

## **REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES**

SQL knowledge and experience working with relational databases, query authoring (p/SQL), as well as working familiarity with a variety of databases

Knowledge of, or ability to rapidly become familiar with the District's technology stack including cloud infrastructure, staffing software, financial software, record management software, etc.

Successful history of, processing, extracting value from, and modeling information from disparate datasets

Strong project management and organizational skillsets

Strong interpersonal and communication skills with the ability to write proposals or papers, make presentations, and work closely with upper management

Skills in math, statistical analysis, and technical problem solving

Experience with implementing, administering, and supporting large database solutions (cloud preferred - such as Azure, AWS, etc.)

Experience with industry standard programming languages (for example, Python, Java, etc.)

Ability to build and optimize data pipelines and / or data streaming architecture, and extract / transform / load (ETL) architectures and data sets

Ability to formulate and execute an organizational data governance strategy

Ability to build processes supporting data transformation, data structures, metadata, dependency, and workload management

Ability to identify trends with machine learning and make predictions based on data trends

Ability to prioritize, work independently, keep records, and develop reports

Ability to support cross-functional teams in a dynamic environment

Ability to travel for classes and conferences to support professional development

Ability to understand and follow oral and written instructions

Ability to utilize data visualization tools (for example, Tableau, PowerBI) to present real-time meaningful information to internal and external stakeholders

## **MATERIALS AND EQUIPMENT DIRECTLY USED**

Operates general office equipment including telephones, calculators, computer terminals, personal computers, copy machine, printer, fax, camera, presentation audiovisual equipment, smart devices and various computer programs, hardware, and software.

## **JOB REQUIREMENTS, EDUCATION AND EXPERIENCE**

### **ENTRY**

- Bachelor's degree in computer science, data science, information systems, statistics or equivalent with a preference for a data engineering concentration
- Ability to use and operate a wide variety of office automation equipment and software including analytics applications, database management, record storage, retrieval systems and word processing
- Experience with one or more programming languages (Python, SQL, Java, etc.) and knowledge of business intelligence solutions (Tableau, Power BI, Alteryx, etc.)
- Understanding of the District's product/tools/systems and functionality
- Possess interpersonal skills necessary to effectively work with district staff and third-party providers
- Ability to analyze data using standard statistical methods, interpret the results, and provide summaries through multiple reporting platforms
- Two to five years related work experience desirable
- Knowledge of continuous improvement programs such as Lean management or TQM (total quality management)

### **MASTERY**

- Master's degree in related field
- Ten years' experience in roles that required highly technical expertise and experience working across one or more products or a suite/subset of activities of internal business systems
- Five years' experience working in a data engineer/analyst role for a fire district
- Achieved position specific continuing education
- Demonstrate ability to effectively communicate internally and externally
- Ability to multi-task, prioritize and meet assigned deadlines
- Provides excellent customer service to all clients, personnel and elected officials

## **OTHER NECESSARY SPECIAL REQUIREMENTS**

Must be at least 18 years of age. Must possess a valid Colorado Driver's License (or be eligible to obtain by time of employment) and exhibit a safe driving record. Failure to maintain a valid Driver's License and safe driving record is subject to Administrative Procedure #4104 Operation and Use of District Vehicles. Background investigation, polygraph, physical examination, and a substance screening required prior to employment.

Must demonstrate the ability to meet the physical demands of the job including the ability to retrieve information and supplies from various locations in the office when needed. May include exposure to periods of high activity and high stress under demanding conditions. The position requires a great deal of communication with district staff, the public, and outside agencies. While performing the duties of this job, the employee is regularly required to sit, talk and hear. The employee is occasionally required to use hands to finger, handle, or feel objects, tools, or controls; reach with hands and arms, stoop, kneel, crouch, and crawl.

## **PHYSICAL DEMAND CHARACTERISTICS OF JOB**

### **KEY:**

Never =	Not required
Occasionally (OCC) =	1% to 32% of workday (1 min. to 2.5 hrs. of 8-hr. day)
Frequently (FREQ) =	33% to 66% of workday (2.6 to 5.25 hrs. of 8-hr. day)
Constantly (CONSTANT) =	67% to 100% of workday (5.3 to 8 hrs. out of 8-hr. day)
Essential =	E
Marginal =	M

<b>FUNCTION</b>	<b>NEVER</b>	<b>OCC</b>	<b>FREQ</b>	<b>CONSTANT</b>	<b>E/M</b>	<b>COMMENTS</b>
SITTING			X---	-----X	E	Prolonged periods up to whole day
STANDING		X			E	Depends on work assigned
WALKING		X			E	Depends on work assigned
PUSHING		X			E	File boxes, delivery packages, cleaning supplies, office supplies
PULLING		X			E	File boxes, delivery packages, cleaning supplies, office supplies
CLIMBING STAIR/LADDER		X			E	Get supplies, to and from meetings
TWISTING AT NECK			X		E	While driving, performing work, taking notes, typing, stocking supplies
TWISTING AT WAIST		X			E	Moving supplies, stocking supplies, taking notes, answering questions
BENDING AT WAIST		X			E	Moving supplies, stocking supplies, taking notes, answering questions
SQUATTING AT KNEES		X			E	Moving supplies, stocking supplies
KNEELING		X			E	Moving supplies, stocking supplies
REACHING ABOVE SHOULDER HEIGHT		X			E	To climb ladders, file, stock
REACHING FORWARD AND AWAY			X		E	Filing, answering phones, driving, demonstrations, move equipment
REACHING BELOW WAIST		X			E	To perform field work, office work, and to access low areas
DRIVING		X			E	To and from meetings off site

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## STRENGTH DEMANDS

LIFTING, CARRYING, PUSHING, PULLING	NEVER	OCC	FREQ	CONSTANT	E/M	COMMENTS
UNDER 10 LBS.			X		E	Office supplies, boxes, packages, books, PC supplies
10 TO 20 LBS.			X		E	Office supplies, boxes, packages, books, PC supplies
21 TO 50 LBS.			X		M	Boxes, supplies
51 TO 100 LBS.	X					
OVER 100 LBS.	X					

## HAND USAGE

FUNCTION	NEVER	OCC	FREQ	CONSTANT	E/M	COMMENTS
FINE FINGER MANIPULATION		X			E	Manipulate small objects and tools, leaf through paperwork and plans, type, staple, general office work
GRASPING			X		E	Handling of all types of office supplies
KEYBOARDING		X			E	Data entry, reports, forms, presentations, office work
WRITING		X			E	Forms, messages, plan reviews, checklists, notes and updates
REPETITIVE MOTION OF MORE THAN 1X EVERY 30 SECONDS		X			E	Operating keyboards, typing, filing, office work
REPETITIVE MOTION OF LESS THAN 1X EVERY 30 SECONDS		X			E	Operating keyboards, typing, filing, office work, stacking boxes

## ENVIRONMENTAL CHARACTERISTICS

CHARACTERISTIC	YES	NO	E/M	COMMENTS
EXTREME COLD	X		X	N/A
EXTREME HEAT	X		X	N/A
EXTREME MOISTURE	X		X	N/A
HAZARDS	X		M	Construction area, electrical, trip/fall, slant/slope, ice, low headroom, uneven ground in supply room and parking lot
EXTREME NOISE	X		M	Alarms, fire equipment, special events
VIBRATIONS	N/A		X	N/A
FUMES	X		X	N/A