

**Job Title:** Data Architect

\*\*\* Two positions available;

**Location:** Schriever Air Force Base, CO

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**Clearance:** Secret

**Level:** Mid-Level/Senior

**Job Description:** The selected applicant will serve as the **Architect** for an integrated contractor team, supporting high-fidelity/high-resolution modeling of the Ballistic Missile Defense System (BMDS) in a virtualized, high-performance, high-capacity environment to provide Modeling and Simulation as a Service (MSaaS). The qualified candidate will be responsible for supporting the Integration, Test and Verification of large-scale data storage environments to support the Missile Defense Agency's digital modeling/simulation programs. This includes working with many of the following technologies: data pipelines, data services, operational data stores, data warehouses, data marts, big data stores, data mining, big data visualization and experiment designs. The right individual will display both a passion for data science and leading a cultural change in how data is used throughout the organization regarding these efforts. Some travel is required.

**Primary Duties and Responsibilities:**

- Lead data collection planning, data quality verification, and data quality reporting for a cloud-based simulation environment scalable to monthly volumes of thousands of simulation runs producing hundreds of terabytes of data.
- Perform duties associated with providing Apache Hadoop data lake for storage and "big data analytics."
- Assist in the design and implementation of a data governance framework
- Will have a key role in establishment and administration of a comprehensive enterprise metadata management program using HCatalog and related tools.
- The candidate will create automated methods for checking data against a variety of data format and quality standards such as BMDS tactical message formats
- The candidate will work in a collaborative role with software development teams, system integrators, analysts, network architect, cybersecurity personnel, and configuration management personnel.
- Define and analyze data requirements needed to support BMDS technical performance analysis
- Define and analyze data requirements needed to support system performance analysis
- Create and maintain both a logical and physical data model
- Frequently provide written and verbal data management metrics to MDA government.
- Helps in the development of processes and tools to monitor and analyze model performance and data accuracy
- Partners with technology teams to implement appropriate technical approaches for integration, test and verification

- Helps in the development of custom data models and algorithms to apply to data sets including cloud based data solutions using new or emerging technologies

#### Minimum Requirements:

- A Bachelor of Science degree in Data Management, Computer Science, Business Information Management, Management Information Systems, or related technical discipline
- Five (5) to eight (8) years applicable progressively complex related experience.
- This position requires the selected candidate have an active DoD Secret clearance with the ability to obtain a TS/SCI clearance.

#### Required Skills

- Demonstrated expertise and experience with emerging data technologies such as Columnar, Apache Hadoop, Apache Spark, MapReduce, High-Performance Computing Cluster (HPCC), Hydra, or similar.
- Experience performing system administration in a Linux environment.
- Familiarity with designing appropriate metadata schema for multiple intended uses.
- Experience writing data management plans that include data descriptions, protocols, workflows, metadata standards, data storage and backup, access/sharing strategy, data preservation plan, security plan, and roles and responsibilities.
- Experience performing automated data quality verification against large sets of established goals and providing related reports at levels of detail appropriate for the intended audience.
- The incumbent will work as part of a multi-contractor/government team and must be able to complete tasks with little direct supervision.

#### Preferred Capabilities/Experience

- “Big data” related certifications such as Certified Data Management Professional (CDMP), Microsoft Certified Solutions Expert (MCSE): Data Management and Analytics, IBM Certified Data Engineer – Big Data, or Certificate in Engineering Excellence Big Data Analytics and Optimization (CPEE)
- Experience in shell scripting languages: Bash, AWK, SED, Perl, Python, etc.
- Knowledge of a variety of machine learning techniques (clustering, decision tree learning, artificial neural Networks, etc.)
- Knowledge using MySQL and/or other query tools to gather and interrogate large data sets
- Familiarity with BMDS components, kill chain terminology, and tactical message formats
- Familiarity with commercial cloud services such as Amazon Web Services and Microsoft Azure
- Familiarity with virtualized environments such as VMware
- Familiarity with modeling and simulation
- Experience with batch data analytics platforms for structured and unstructured data

- Excellent verbal and written communications skills

Security Clearance Requirements:

- Position requires that candidate possess, or be able to acquire an active SECRET security clearance in order to access classified information. Inability to maintain a security clearance will result in candidate being ineligible to support this position.