

## SENIOR DATA ENGINEER DATA, ANALYTICS AND INFRASTRUCTURE WASHINGTON, DC

## **OVERVIEW OF RESPONSIBILITIES:**

The Senior Data Engineer will oversee the department's data integration work, including developing a data model, maintaining a data warehouse and analytics environment, and writing scripts for data integration and analysis. This role will work closely and collaboratively with members of the Data & Analytics and Development teams to define requirements, mine and analyze data, integrate data from a variety of sources, and deploy high-quality data pipelines in support of the analytics needs of the AFL-CIO and its affiliates. They will also create and oversee an automated reporting system and manage other proprietary systems.

The Data, Analytics & Infrastructure Resource's (DAIR) goal is to generate lasting power for the labor movement, by building the Federation's programmatic tools, web development, data systems, and analytics capacity. This team serves a broad range of clients across the labor movement - from other AFL-CIO departments, to AFL-CIO affiliates, to state and local labor bodies. Through investment in central infrastructure, training, and direct service work, the department aims to empower its partners to run stronger and more cost effective political and legislative mobilization, digital, and organizing campaigns.

This position reports to the Deputy Director of Data, Analytics & Infrastructure Resource.

## **DESCRIPTION OF DUTIES:**

- Maintain and build on our data warehouse and analytics environment, the home for almost all of the AFL-CIO's political and organizing data.
- Design, implement, test, deploy, and maintain stable, secure, and scalable data engineering solutions
  and pipelines in support of data and analytics projects, including integrating new sources of data into
  our central data warehouse, and moving data out to applications and affiliates.
- Build reports and data visualizations, using data from the data warehouse and other sources.
- Produce scalable, replicable code and engineering solutions that help automate repetitive data management tasks.
- Perform one-off data manipulation/munging and analysis on a wide variety of political and organizing
- Implement and monitor best in class security measures in our data warehouse and analytics environment, with an eye towards the evolving threat landscape.
- Help other DAIR staff troubleshoot their SQL, Python, or R code.
- Train other DAIR staff on these skills.
- Other duties as assigned.

## **QUALIFICATIONS:**

- Strong command of relational databases and SQL. Extract, Transform, and Load (ETL) data into a relational database.
- Proficiency with Python or R, especially for data manipulation and analysis, and ability to build, maintain and deploy sequences of automated processes with these tools.
- BA or BS in related field or equivalent work experience.
- General data manipulation skills: read in data, process and clean it, transform and recode it, merge different data sets together, reformat data between wide and long, etc.
- Demonstrated ability to learn new techniques and troubleshoot code without support, ex. find answers to common programming challenges on Google. In other words, be able to learn on the job.
- Demonstrated ability to write clear code that is well-documented and stored in a version control system (we use Git).
- Demonstrated ability to work independently and be a self-starter.
- Excellent listening, interpersonal, communication and problem solving skills.
- Demonstrated ability to work effectively in teams, in both a lead and support role.
- Use APIs to push and pull data from various data systems and platforms.
- Experience working with cloud infrastructure services like Amazon Web Services and Google Cloud is preferred but not required.
- Effective time management skills, including demonstrated ability to manage and prioritize multiple tasks and projects.
- Experience with VoteBuilder, the LAN or VAN and digital organizing tools, like Action Network, ActionKit or Blue State Digital, is a plus but not required.
- Experience with advanced data visualization and mapping are helpful, but not required.
- Knowledge of and experience with the labor movement a plus.
- Ability to work long and extended hours as needed.

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