



# Data Scientist II

Salary Group: B30

Class Code: 0662

| <u>CLASS TITLE</u>       | <u>CLASS CODE</u> | <u>SALARY GROUP</u> | <u>SALARY RANGE</u>          |
|--------------------------|-------------------|---------------------|------------------------------|
| DATA SCIENTIST I         | 0660              | B28                 | \$83,991 - \$142,052         |
| <b>DATA SCIENTIST II</b> | <b>0662</b>       | <b>B30</b>          | <b>\$101,630 - \$171,881</b> |

## GENERAL DESCRIPTION

Performs advanced (senior-level) data science work. Work involves gathering, analyzing, and managing large-scale data sets to guide key business decisions and model various market conditions in order to provide information for special projects or reports. Also involves designing and constructing new processes for data modeling and production using prototypes, algorithms, predictive models, and custom analysis. May supervise the work of others. Works under minimal supervision, with extensive latitude for the use of initiative and independent judgment.

## DISTINGUISHING CHARACTERISTICS

The Data Scientist job classification series is intended for employees who lead the management and analysis in querying, extracting, managing, and analyzing multiple, complex datasets ensuring data integrity, quality, and timeliness of results. Employees also oversee the deployment of reporting and analytical solutions. The Data Analyst job classification series examines data to identify trends, develops charts, and create visual presentation or reports to help agencies to make strategic decisions.

## EXAMPLES OF WORK PERFORMED

Develops and manages predictive modeling algorithms to mine large data sets in order to make business decisions and discover solutions to business problems.

Develops and implements databases, data collection systems, data analytics, and other strategies that optimize statistical efficiency, accuracy, and quality.

Develops data quality measures, analyzes data quality results, and implements necessary changes to ensure data quality improvement.

Gathers, cleans, process, compiles, and queries raw data.

Codes programs to automate data collection and processing and to use for statistical modeling and graphic analysis; and builds data visualization tools, dashboards, and reports.

Researches and applies knowledge of existing and emerging data science principles, theories, and techniques to inform business decisions; and reviews analytics products to develop new or improved predictive modeling products.

Identifies and adopts best practices in reporting and analysis: data integrity, design, analysis, validation, and documentation.

Prepares concise, comprehensive technical reports to present and interpret data, identify alternatives, and make and justify recommendations on data revisions.

Manages the statistical analysis, data programming, and data mining to build data models that address short- and long-term business needs; and builds data visualization tools, dashboards, and reports.

Manages and conducts in-depth investigations into business problems to identify trends and potential improvements.

Administers project planning techniques to break down basic and occasionally moderately complex projects into tasks and ensure deadlines are met.

Quantifies the potential value of a new data set for future models and models accuracy over baselines for data sets.

Serves as a subject matter expert on data integrity, extraction, and compilation.

May supervise the work of others.

Performs related work as assigned.

## **GENERAL QUALIFICATION GUIDELINES**

### **EXPERIENCE AND EDUCATION**

Experience in data science, predictive modeling, and algorithm work. Graduation from an accredited four-year college or university with major coursework in data science, business analytics, computer science, computer information systems, management information systems, accounting, finance, mathematics, statistics, economics, or a related field is generally preferred. Experience and education may be substituted for one another.

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

Knowledge of local, state, and federal laws and regulations relevant to data science and data governance; data modeling techniques and algorithms; statistics and analyzing data sets; artificial intelligence; of visualization techniques; running queries, report writing, and presenting findings; database design development, data mining, and segmentation techniques; computer programming languages; and record keeping, including security procedures for handling, protecting, and distributing confidential data.

Skill in the use of a computer and applicable software; analyzing problems and devising effective solutions; conducting data searches; evaluating and translating large amounts of data; programming; and critical thinking.

Ability to manage and manipulate large data sets; to provide advanced analysis and interpret moderate to complex concepts; to manage projects and prepare reports; to maintain accuracy and attention to detail; to code, test, and debug software; to communicate effectively; and to supervise the work of others.