

1560 – Data Science

Major Duties for This Position May Include:

- Performs assigned portions of professional or technical projects involving some or all duties such as: data science to establish objectives and approach; ability to isolate and define critical features of the problem.
- Reviews, coordinates, and monitors implementation of policies governing the program area.
- The incumbent will incorporate and/or integrate health equity principles and practices in the development of IT infrastructures, algorithms, concepts, storage, retention, and surveillance programs.

Related Competencies

- Data Design
- Data Sources and Preparation
- Data Visualization
- Performance and Evaluation

Basic Requirements

Degree in mathematics, statistics, computer science, data science or field directly related to the position. The degree must be in a major field of study (at least at the baccalaureate level) that is appropriate for the position.

or

Combination of education and experience with courses equivalent to a major field of study (30 semester hours) as shown in paragraph above, plus additional education or appropriate experience.

Minimum Qualifications

In additions to meeting the basic requirements above, applicants must meet the minimum qualifications requirement as defined below:

GS-07 Specialized Experience Requirements

You must have one year of specialized experience at a level of difficulty and responsibility equivalent to the GS-05 grade level in the Federal Service. Specialized experience for this position includes:

- Participating in analyzing data modeling concepts and reviewing data for trends from multiple systems.

Or Education

One full year of graduate level education.

Or Superior Academic Achievement

Based on a bachelor's degree that is demonstrated through class standing (upper 1/3 of class); grade point average (3.0/4.0 overall or 3.5/4.0 in major), or election to membership in a qualifying national scholastic honor society.

Or Combination

You may qualify on a combination of education and experience, the total percentage of experience at the required grade level compared to the specialized experience requirement, as well as the percentage of completed education compared to the educational requirement must equal at least 100 percent.

GS-09 Specialized Experience Requirements

You must have one year of specialized experience at a level of difficulty and responsibility equivalent to the GS-07 grade level in the Federal Service. Specialized experience for this position includes:

- Analyzing and interpreting data modeling, algorithms, and coding data requirements
- Analyzing and providing information from multiple systems to prepare data reports

Or Education

Master's or equivalent graduate degree **or** two (2) full years of progressively higher-level graduate education leading to such a degree **or** LL.B or J.D., if related. **TRANSCRIPTS REQUIRED.**

Or Combination

You may qualify on a combination of education and experience. The total percentage of experience at the required grade level compared to the requirement, must equal at least 100 percent. Only graduate level education more than the first 18 semester hours (27 quarter hours) may be combined to be considered for qualifying education. **TRANSCRIPTS REQUIRED.**

GS-11 Specialized Experience Requirements

You must have one year of specialized experience at a level of difficulty and responsibility equivalent to the GS-09 grade level in the Federal Service. Specialized experience for this position includes:

- Applying and developing data adaptive algorithms, machine learning and other AI systems
- Reviewing, analyzing, and providing information from multiple systems to prepare data reports
- Using data tools and techniques to process large, datasets into structured formats for matching, analysis, or estimation.

Or Education

Ph.D. or equivalent doctoral degree **or** three (3) full years of progressively higher-level graduate education leading to such a degree **or** LL.M, if related. **TRANSCRIPTS REQUIRED.**

Or Combination

You may qualify on a combination of education and experience. The total percentage of experience at the required grade level compared to the requirement, must equal at least 100 percent. Only graduate level education more than the first 36 semester hours (54 quarter hours) may be combined to be considered for qualifying education. **TRANSCRIPTS REQUIRED.**

GS-12 Specialized Experience Requirements

You must have one year of specialized experience at a level of difficulty and responsibility equivalent to the GS-11 grade level in the Federal Service. Specialized experience for this position includes:

- Identifying data required for use in the management and direction of programs
- Developing data adaptive algorithms, machine learning and other AI systems
- Using data tools and techniques to process large, datasets into structured formats for matching, analysis, or estimation
- Applying statistical analyses to determine the fitness-for-use of new or combined data sources, machine learning outputs, and data science methods.

Note: There is no substitution of education for specialized experience at the GS-12 level.

GS-13 Specialized Experience Requirements

You must have one year of specialized experience at a level of difficulty and responsibility equivalent to the GS-12 grade level in the Federal Service. Specialized experience for this position includes:

- Conducting research using public health data systems (i.e., survey data, health care facility data, syndromic surveillance data, electronic records, vital records, and non-traditional data sources)
- Designing and developing data analytics/science related products using techniques such as machine learning, natural language processing, robotics process automation, and artificial intelligence
- Conducting analysis using software and/or programming languages
- Using data tools and techniques to process large, datasets into structured formats for matching, analysis, or estimation

Note: There is no substitution of education for specialized experience at the GS-13 level.

GS-14 Specialized Experience Requirements

You must have one year of specialized experience at a level of difficulty and responsibility equivalent to the GS-13 grade level in the Federal Service. Specialized experience for this position includes:

- Designing and developing of data analytics/science related products using techniques such as machine learning, natural language processing, robotics process automation, and artificial intelligence
- Conducting analysis using software and/or programming languages
- Identifying problematic issues and reporting discrepancies and providing appropriate recommendations to leadership

Note: There is no substitution of education for specialized experience at the GS-14 level.

GS-15 Specialized Experience Requirements

You must have one year of specialized experience at a level of difficulty and responsibility equivalent to the GS-14 grade level in the Federal Service. Specialized experience for this position includes:

- Evaluating impacts of new policies and procedures to determine the effectiveness in meeting goals and objectives of a department or division
- Providing guidance for organizations information technology and negotiate on contracts providing information technology and services
- Planning, organizing, and presenting data science and data visualization techniques-based reports showcasing data-driven insights to organizational leadership and various program offices
- Guiding strategic planning for organizational structure, data management, information technology infrastructure, across an organization and with academic institutions and public health communities

Note: There is no substitution of education for specialized experience at the GS-15 level.

Experience refers to paid and unpaid experience. Examples of qualifying unpaid experience may include volunteer work done through National Service programs (such as Peace Corps and AmeriCorps), as well as work for other community-based philanthropic and social organizations. Volunteer work helps build critical competencies, knowledge, and skills; and can provide valuable training and experience that translates directly to paid employment. You will receive credit for all qualifying experience, including volunteer experience.