

1529 - Mathematical Statistician (Data Scientist)

Major Duties for This Position May Include:

- Identifies relevant data available, including internal and external data sources, leveraging new data collection processes such as smart meters and geo-location information, or social media and unstructured web-based data.
- Communicates and works with business subject matter experts to educate the organization both from IT and business perspectives on new approaches, such as testing hypotheses and statistical validation of results.
- Recommends using innovative data science strategies for ongoing improvements to methods and algorithms that lead to findings, including new information.
- Provides business metrics for overall projects to show contributions and improvements from monitoring of initial stages and through multiple iterations.

Related Competencies

- Data and Information Management
- Data Monitoring
- Customer Service
- Statistical Software

Basic Requirements

Degree that included 24 semester hours of mathematics and statistics, of which at least 12 semester hours that are in mathematics and 6 semester hours in statistics.

or

Combination of education and experience that includes at least 24 semester hours of mathematics and statistics, including at least 12 hours in mathematics and 6 hours in statistics, as shown above, plus appropriate experience or additional education.

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:

- Conducting data analysis and designs complex algorithms using artificial intelligence (e.g., machine learning) methods
- Assist in data collection analysis, and retention requirements based on the surveillance data collected.

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:

- Conducting data analysis and designs complex algorithms using artificial intelligence (e.g., machine learning) methods
- Providing on-going tracking and monitoring of performance of decision systems and statistical models
- Assists in preparing comprehensive reports that include discussion of substantive issues related to data science methodology for public health surveillance

Or Education

Master's or equivalent graduate degree **or** 2 years of progressively higher-level graduate education leading to a master's 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:

- Assisting in the implementation of data collection systems; producing and documenting analytic data files
- Or conducting basic statistical analyses of population, clinical, health, or administrative data

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:

- Designing, conducting, and documenting statistical analyses of population, health, or administrative data related to health topics for publication.

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:

- Reviewing complex statistical analyses, data science methods such as machine learning and data visualizations, and in working with large structured and unstructured datasets.

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, conducting, and documenting statistical analyses of population, health, or administrative data related to health topics for publication
- Conducting data analysis and designs complex algorithms using artificial intelligence (e.g., machine learning) methods
- Reviewing complex statistical analyses, data science methods such as machine learning and data visualizations, and in working with large structured and unstructured datasets.

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