1560 – Data Science

Major Duties Required for This Position May Include:

- Consult and collaborate with statistical, data science, artificial intelligence and public health professionals in the collection, linkage, processing, mining, coding, classification, and analysis of public health surveillance, research, and administrative health data.
- Utilize current data science methods and tools to plan and conduct research using public health data systems, including survey data, health care facility data, syndromic surveillance data, electronic records, vital records, and non-traditional data sources such as social media and unstructured web-based data.
- Develop, implement, and monitor advanced analytic, computation, and predictive modeling tools for CDC programs.
- Perform a variety of scientific activities and analyses related to advanced computation, statistical and machine learning technologies and algorithms, artificial intelligence, or data mining in various program areas.
- Prepare comprehensive reports that include discussion of substantive issues related to data science methodology for public health surveillance and related applications, assessment of the adequacy and quality of data used in the analysis, and explanation of the methods, results, and relevance to the health issue under study.

Related Competencies

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

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 that includes 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 addition to meeting the basic requirements above, to qualify for this position you must also meet the qualification requirements listed below:

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:
• Utilizing principles, concepts, and theories of data science, operation research methodology, analysis, and evaluation.

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:

• Developing mathematical, and/or statistical models for evaluation, identification, collection, and analysis of all data used to support assigned public health projects or program(s).

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:

• Performing scientific activities related to data modeling, forecasting, and/or statistical analyses for public health projects or program(s).

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:

• Performing scientific activities related to modeling, computational and/or statistical analyses for public health projects or program(s).

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:
• Providing leadership expertise in automating and leveraging tools and services to enable effective implementation of analytics, data science, visualization, and generation of insights for public health decision-making.

**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.