



DATA ANALYST (OPERATIONS RESEARCH ANALYST/ COMPUTER SCIENTIST), GS-13

PURPOSE OF POSITION AND ORGANIZATIONAL LOCATION:

The primary purpose of this position is: to serve as a key data analyst with analysis and oversight responsibilities in the areas of data management, modeling and simulation, machine learning and artificial intelligence. **The organizational location of this position is: NC3 Enterprise Center (NEC), Systems Engineering & Integration (SE&I) Division, Enterprise Capabilities and Performance Branch, Data and Capabilities Section, Fort Meade, MD**

ORGANIZATIONAL GOALS OR OBJECTIVES:

The organizational goals or objectives of this position are: to provide engineering expertise to deliver NC3 enterprise Digital Engineering (DE) capabilities, digitized data taxonomy and ontology, and incorporates cyber in all current and forward looking planning. Leads, manages and drives all data and analytic efforts for the NEC. Develops and delivers DE capabilities for the NC3 enterprise.

DUTY 1: 35% Critical

Serves as a subject matter expert (SME) for statistics, multivariate statistical analysis, machine learning, artificial intelligence, data science, operations research, computer analysis, master data management, and data visualization. Generates ideas for new projects, studies and approaches in one or more subject areas and advises managers of advantages and disadvantages of different approaches and alternatives. Guides and oversees the use of advanced predictive analysis, data visualization, modeling, machine learning, and data science methods to generate information, recognize patterns, and predict outcomes and their respective probabilities. Develops mathematical, statistical, and other automated system models for identification, collection, storage, and analysis of data used to support assigned projects and studies. Develops linear or multivariate programming models to optimize projections. Executes the modeling of complex data problems, discovery of insights, and identifies opportunities through the use of statistical, algorithmic, mining, and visualization techniques to include analytic use of advanced capabilities, such as artificial intelligence and machine learning. Troubleshoots results, performs quality assurance of results and prepares written documentation of the analysis. Provides guidance and technical advice in the development of initial prototype analytics that employ statistical methodologies to fused data sources. Directs and conducts analysis of research results and data using advanced statistical techniques. Demonstrates advanced programming expertise using the latest version



of advanced data science software. Recommends statistical methods and advanced algorithms based on a wide variety of possible approaches, and a range of established methods. Recommends additions or modifications to existing hardware and software.

DUTY 2: 25% Critical

Utilizes scientific inquiry in the development of models and programs to evaluate and predict the ability to support assigned projects, studies, or problems. Diagnoses problems using a comprehensive knowledge of scientific techniques (e.g., data collection and analysis procedures). Participates in problem definition and refinement. Identifies significant variables and thoroughly examines underlying relationships. Utilizes mathematical and statistical techniques, elements of operations research theory, and engineering knowledge to develop solutions to problems. Develops or adapts existing models to accomplish analyses and evaluates algorithms and other logic. Utilizes recognized methods and applies existing models when applicable to develop solutions. Initiates and formulates plans and carries out project(s) through extensive and specialized original performance analyses and evaluations. Responsible for the completeness, adequacy, and validity of assumptions. Evaluates alternative courses of action and makes recommendations based on sound scientific theory. For specific taskings, devises new methods of problem solving, working in areas where there is a lack of applicable precedents.

DUTY 3: 20% Critical

Provides technical guidance, advisory support, and assistance. Performs very complex, difficult studies/evaluations on an individual basis or as a team member responsible for completing defined portions of an overall work effort. Serves as an authority and consultant to other organizations, commands, and/or agencies. Promotes interchange of information on mission requirements, capabilities, deficiencies, and technology applications. Analyzes problems revealed by prior studies and advises higher officials of the feasibility of different approaches which provide a basis for action or the solution to a specific problem.

DUTY 4: 20% Critical

Participates in or leads discussions, meetings, committees or special projects and presents briefings and prepares recommendations and reports. Presents clear, concise, and well-structured oral presentations that address the designated issues. Identifies problems and attempts to resolve conflicts in a timely manner through persuasive discussions with responsible members in a meeting or working group. Coordinates with DoD Component staff offices and working groups, manufacturers, vendors, customers, and engineering/installation personnel. Provides reports and recommendations so that problems and solutions are resolved without jeopardizing the mission. Prepares reports with recommendations. Provides briefings and develops recommendations concerning data analysis, artificial learning, modeling and simulation, and/or information system objectives.



KNOWLEDGES, SKILLS, AND ABILITIES (KSA):

1. Knowledge of a broad range of communication systems operations research, modeling, simulation, and analysis techniques and possession of analytical abilities.
2. Knowledge of quantitative techniques and methods used to develop, adapt, modify, and apply models to resolve problems or define and clarify alternative solutions.
3. Knowledge of data governance strategies, databases and data types, as well as the ability to direct the ingestion, correlation, and metadata tagging of arbitrary data types in novel ways.
4. Skill in applying methods and techniques to analyze and evaluate the effects of changes in program plans and funding which could affect existing and future advanced modeling and simulations.
5. Skill in negotiating and/or defending findings and program support concepts.
6. Ability to lead study teams; originate new ideas, projects, and methodologies; and execute projects and/or studies within established financial and/or time constraints.
7. Ability to develop and utilize appropriate data collection techniques and to design, build, integrate and use models, modeling software, specialized software, and simulation techniques to cloud environment, NC2/NC3 operations and communication systems.
8. Ability to communicate effectively, both orally and in writing; negotiate complex issues; and maintain good working relations.