Data Scientist - Entry to Expert Level (Maryland Location)

Fort George G. Meade Complex, MD
Pay Plan: GG, Grade: 07/1 to 15/10

Responsibilities

Data science at the National Security Agency (NSA) is a multi-disciplinary field that uses elements of mathematics, statistics, computer science, and application-specific knowledge to gather, make, and communicate principled conclusions from data. Data science is present in every aspect of the mission. NSA Data Scientists tackle challenging real-world problems leveraging big data, high-performance computing, machine learning, and a breadth of other methodologies. We are looking for critical thinkers, problem solvers, and motivated individuals who are enthusiastic about data and believe that answers to hard questions lie in the yet-to-be-told story of diverse, complicated data sets. You will employ your mathematical science, computer science, and quantitative analysis skills to develop solutions to complex data problems and take full advantage of NSA’s capabilities to tackle the highest priority foreign intelligence and cybersecurity challenges. As a Data Scientist, your responsibilities may include: - Exploratory data analysis and exploratory model-fitting to reveal data features of interest - Machine-learned predictive modeling - Construct usable data sets from multiple sources to meet customer needs - Identifying and analyzing anomalous data (including metadata) - Developing conceptual design and models to address mission requirements - Developing qualitative and quantitative methods for characterizing datasets in various states - Performing analytic modeling, scripting, and/or programming - Working collaboratively and iteratively throughout the data-science lifecycle - Designing and developing analytics and techniques for analysis - Analyzing data using mathematical and statistical methods - Evaluating, documenting, and communicating research processes, analyses, and results to customers, peers, and leadership - Creating interpretable visualizations.

Job Summary

Data scientists are hired into positions either directly supporting a technical mission office or into the Data Science Development Program (DSDP). For the former, you will have the opportunity to collaborate with NSA's experts in the field of data science and other computational disciplines while tackling NSA's highest priority mission challenges. You will have opportunities to attend technical conferences with experts internally and from industry and academia as well as discuss and share NSA's challenges and successes at technical roundtables. The Data Science Development Program (DSDP) is a three-year opportunity to develop and enhance your data science skills. Participants experience the breadth of data science at NSA through six- to nine-month assignments in a variety of diverse organizations, and collaborate with NSA's experts in the field of data science. You will have opportunities to attend technical conferences with experts from industry and academia, and you will routinely discuss and share NSA’s challenges and successes at weekly technical roundtables. You will study data science and related subjects taught by NSA experts. We foster an environment where you will develop your data science skills, while quickly
contributing to NSA's highest priority mission challenges. Graduates of the DSDP may choose their first permanent assignments from any of the NSA Directorates.

Qualifications

The qualifications listed are the minimum acceptable to be considered for the position. Applicants who meet minimum qualifications may be asked to complete the Data Science Examination (DSE) evaluating their knowledge of statistics, mathematics, and computer science topics that pertain to data science work. Passing this examination is a requirement in order to be considered for selection into a data scientist position. Degree must be in Mathematics, Applied Mathematics, Statistics, Applied Statistics, Machine Learning, Data Science, Operations Research, or Computer Science. A degree in a related field (e.g., Computer Information Systems, Engineering), a degree in the physical/hard sciences (e.g. physics, chemistry, biology, astronomy), or other science disciplines (i.e., behavioral, social, library, and life) may be considered if it includes a concentration of coursework (typically 5 or more courses) in advanced mathematics (typically 200 level or higher; such as calculus, differential equations, discrete mathematics, linear algebra, and calculus based statistics) and/or computer science (e.g., algorithms, programming, data structures, data mining, artificial intelligence). College-level Algebra or other math courses intended to meet a basic college level requirement, or upper level math courses designated as elementary or basic do not count. Relevant experience must be in one or more of the following: designing/implementing machine learning, data mining, advanced analytical algorithms, programming, data science, advanced statistical analysis, artificial intelligence, computational science, software engineering, or data engineering. Note: Degrees in related fields will be considered if accompanied by a Certificate in Data Science from an accredited college/university. ENTRY/DEVELOPMENTAL Entry is with a Bachelor's degree and no experience. An Associate's degree plus 2 years of relevant experience may be considered for individuals with in-depth experience that is clearly related to the position. FULL PERFORMANCE Entry is with a Bachelor's degree plus 3 years of relevant experience or a Master's degree plus 1 year of relevant experience or a Doctoral degree and no experience. An Associate's degree plus 5 years of relevant experience may be considered for individuals with in-depth experience that is clearly related to the position. SENIOR Entry is with a Bachelor's degree plus 6 years of relevant experience or a Master's degree plus 4 years of relevant experience or a Doctoral degree plus 2 years of relevant experience. An Associate's degree plus 8 years of relevant experience may be considered for individuals with in-depth experience that is clearly related to the position. EXPERT Entry is with a Bachelor's degree plus 9 years of relevant experience or a Master's degree plus 7 years of relevant experience or a Doctoral degree plus 5 years of relevant experience. An Associate's degree plus 11 years of relevant experience may be considered for individuals with in-depth experience that is clearly related to the position.

Competencies

The ideal candidate is someone with a desire for continual learning and strong problem-solving, analytical, and interpersonal skills. You might be a great fit for our team if the following describes you: - Completed a degree program in the fields of mathematics,
statistics, computer science, computational sciences, or a passion for rigorous analysis of
data - Tenacity, integrity, persistence, and willingness to learn - Ability to solve complex
problems - Use critical thinking and reasoning to make analytic determinations - Works
effectively in a collaborative environment - Strong communications skills to both technical
and non-technical audiences

Pay, Benefits, & Work Schedule

Salary offers are based on candidates' education level and years of experience relevant to
the position and also take into account information provided by the hiring
manager/organization regarding the work level for the position. This is a full-time position.
This position is hiring for the Maryland location. Salary ranges vary by work level. Salary
range: $74,682 - $176,300 (Entry/Full Performance/Senior/Expert) On the job training,
internal NSA courses, and external training will be made available based on the need and
experience of the selectee. Monday - Friday, with basic 8 hr/day requirements between
0600 to 1800 (flexible).