1138512 - Computer Scientist - Software Engineer/Cyber Developer - Entry to Experienced Level

Fort Meade, MD

Posted: 2019-12-10 - Closing: 2020-01-31

Responsibilities

Responsibilities The mission demands that NSA "see" the world through a different lens than any other organization. Our Computer Scientists face technical challenges well beyond the wildest imaginations of most people. NSA's mission requires persistent engagement to anticipate and understand complex threats in real-time, on a global scale. From Counter-Terrorism to Combat Support to Cybersecurity, NSA's Computer Science community creates novel, cutting-edge solutions that advance science and underpin every aspect of our foreign intelligence and cybersecurity missions. Solving these extraordinary problems allows NSA to share solutions with the world by contributing to open source, licensing patents, and publishing technical papers. A world-class Computer Science cadre at NSA is vital to the security of the nation. The standards of reliability, repeatability, scale, speed, and compliance that NSA hardware and software products must meet are daunting. Industry and academia change the question to one that can be answered; NSA must answer the question as is. The mission problems, questions, and threats fuel our constant drive for more robust solutions and the use of revolutionary technologies like artificial intelligence, machine learning algorithms, high performance computing, big data analysis, anticipatory algorithms predictive analytics, complex data modeling, advanced computing and network architectures, distributed systems and sensor networks, advanced systems and IT networks, and those we create along the way. Computer Science jobs at NSA run the entire spectrum of the field. Opportunities are available in systems software, mission applications software development, business applications and systems, advanced data management systems and analysis, development of advanced analytic environments, computing research, cybersecurity and encryption. Applicants may also be considered for one of NSA's Development Programs. Designed for entry to mid-level employees, development program participants are afforded the opportunity to receive tailored training, often with a cohort, and multiple assignments across Agency Directorates to develop skills and experience to ground their career at the NSA. As an NSA Computer Scientist your responsibilities may include: - creating analytic applications that scale across multiple, very large, data sets from disparate sources - leveraging and integrating open source, commercial off-the-shelf, and government developed software - leading new advances in computer science, such as: - microprocessor-based advances - beyond the horizon supercomputers - signals processing (including analog control) - user interfaces - deep learning - cybersecurity - design and implementation of encryption - advanced algorithms As an NSA Cyber Developer, your responsibilities may include: - detecting, identifying, and evaluating vulnerabilities in cyberspace systems - developing software and/or hardware exploitation capabilities that enable collection of foreign intelligence from target networks and systems - designing solutions to defend against adversarial threats directed towards the US, to include cutting-edge technologies such as mobile, SCADA, and Internet of Things - analyzing sophisticated malware to thwart cyber attacks and identify new threats
Skills

The ideal candidate is someone who thrives on solving hard problems, has excellent communication and interpersonal skills, and is able to: work independently as well as in a team environment to build solutions handle multiple assignments synthesize information to solve complex problems apply knowledge of data structures and algorithms to software engineering problems develop, diagnose, and operate complex computer systems identify customer needs and validate product design Additionally, the ideal candidate is someone with knowledge and experience in one or more of the following: programming and scripting experience (e.g., C, C++, Java, Assembly, Python, Perl, Ruby, Bash, Node.js, Spark, Puppet, SALT, KAFKA, HADOOP, VHDL, Verilog) building user facing services, middleware, and backend systems full-stack development computer networking (e.g., communication protocols, distributed systems, Internet of Things, real-time systems, routing and switching) protocol analysis (e.g., Wireshark, tcpdump) data spaces, data modeling, data analysis, storage design, and administration simulation/model development prototyping information retrieval, machine learning, artificial intelligence, statistics and analytics hardware and software vulnerability analysis software reverse engineering/interactive debugging tools (e.g., IDA Pro, Ollydbg, gdb) hardware reverse engineering tools (e.g., JTAG, Oscilloscopes) software development life-cycle design, develop, implementation, debug, testing kernel and device driver development network/socket programming embedded systems development

Pay, Benefits, & Work Schedule

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 8hr/day work requirements between 0600 and 1800 (flexible).

Position Summary

Does solving unique problems energize you? Do you like to create distinctive solutions? The difference between NSA Computer Scientists and others are the problems we MUST solve. Our culture believes in solving "unsolvable" problems, which we do by creating new science and new technologies not yet discovered, that will protect and advance our Nation in the 4th Industrial Revolution. Are you ready for the challenge? Are you fearless? ...then click to read more!

Qualifications

Salary Range: $72,351 - $90,157 (Entry/Developmental) *The qualifications listed are the minimum acceptable to be considered for the position. 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. 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. Degree must be in Computer Science (CS). Related fields (e.g., Engineering, Mathematics) may be considered relevant if the programs contain, at minimum, a concentration of courses in the following foundational CS areas: algorithms; computer
architecture (not network architecture); programming methodologies and languages; data structures; logic and computation; and advanced mathematics (for example, calculus, discrete mathematics). Information Technology (IT) or Information Systems (IS) degrees may be considered relevant if the programs contain the amount and type of coursework equivalent to a CS major. Relevant experience must be in the software development process (i.e., requirements analysis, software design, implementation, testing, integration, deployment/installation, and maintenance) and programming. Salary Range: $83,692 - $112,240 (Full Performance) *The qualifications listed are the minimum acceptable to be considered for the position. Relevant experience 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. 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. Degree must be in Computer Science (CS). Related fields (e.g., Engineering, Mathematics) may be considered relevant if the programs contain, at minimum, a concentration of courses in the following foundational CS areas: algorithms; computer architecture (not network architecture); programming methodologies and languages; data structures; logic and computation; and advanced mathematics (for example, calculus, discrete mathematics). Information Technology (IT) or Information Systems (IS) degrees may be considered relevant if the programs contain the amount and type of coursework equivalent to a CS major. Relevant experience must be in the software development process (i.e., requirements analysis, software design, implementation, testing, integration, deployment/installation, and maintenance) and programming. Salary Range: $102,663 - $157,709 (Senior) *The qualifications listed are the minimum acceptable to be considered for the position. 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. 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. Degree must be in Computer Science (CS). Related fields (e.g., Engineering, Mathematics) may be considered relevant if the programs contain, at minimum, a concentration of courses in the following foundational CS areas: algorithms; computer architecture (not network architecture); programming methodologies and languages; data structures; logic and computation; and advanced mathematics (for example, calculus, discrete mathematics). Information Technology (IT) or Information Systems (IS) degrees may be considered relevant if the programs contain the amount and type of coursework equivalent to a CS major. Relevant experience must be in the software development process (i.e., requirements analysis, software design, implementation, testing, integration, deployment/installation, and maintenance) and programming. Formal or informal leadership experience is preferred.

How To Apply - External

To apply for this position, please click the 'Apply' button located at the top right of this posting. After completing the application for the first time, or reviewing previously entered information, and clicking the 'Submit' button, you will receive a confirmation email. Please ensure your spam
filters are configured to accept emails from noreply@intelligencecareers.gov. Please attach an unofficial copy of your transcripts when applying for this position. Providing a copy of your transcripts is especially critical since the minimum qualifications for this position require a CS/CE degree OR a degree that demonstrates a concentration of CS coursework. For example, degrees in Computer Networking, Information Science, Information Systems, Information Technology, Information Security, Information Assurance, Cyber Security, and Digital Forensics MAY be considered for this position IF your coursework/transcripts demonstrate a concentration of CS coursework. Foundational CS coursework includes the following courses: Computer Architecture, Programming Languages, Data Structures, and Algorithms. ***PLEASE NOTE: U.S. Citizenship is required for all applicants. Reasonable accommodations provided to applicants with disabilities during the application and hiring process where appropriate. NSA is an equal opportunity employer and abides by applicable employment laws and regulations. All applicants and employees are subject to random drug testing in accordance with Executive Order 12564. Employment is contingent upon successful completion of a security background investigation and polygraph. This position is a Defense Civilian Intelligence Personnel System (DCIPS) position in the Excepted Service under 10 U.S.C. 1601. DoD Components with DCIPS positions apply Veterans' Preference to eligible candidates as defined by Section 2108 of Title 5 USC, in accordance with the procedures provided in DoD Instruction 1400.25, Volume 2005, DCIPS Employment and Placement. If you are a veteran claiming veterans' preference, as defined by Section 2108 of Title 5 U.S.C., you may be asked to submit documents verifying your eligibility. Please note that you may be asked a series of questions depending on the position you apply for. Your responses will be used as part of the screening process of your application and will assist in determining your eligibility for the position. Be sure to elaborate on experiences in your resume. Failure to provide the required information or providing inaccurate information will result in your application not being considered for this position. Only those applicants who meet the qualifications for the position will be contacted to begin employment processing. Please Note: Job Posting could close earlier than the closing date due to sufficient number of applicants or position no longer available. We encourage you to apply as soon as possible.

DCIPS Disclaimer

The National Security Agency (NSA) is part of the DoD Intelligence Community Defense Civilian Intelligence Personnel System (DCIPS). All positions in the NSA are in the Excepted Services under 10 United States Codes (USC) 1601 appointment authority.