

NETWORK ADMINISTRATOR - PROGRAMMER ANALYST (School District)

DISTINGUISHING FEATURES OF THE CLASS: This position involves the performance of technical duties to maintain the daily operations of electronic data processing systems to meet the needs of the school district computer network. Incumbents will perform technical duties relating to the installation, configuration and management of network operating system (NOS) software and communications hardware. It involves electronic data processing work in which the employee writes applications programs using programming languages including but not limited to Python, JAVA Script, HTML, CSS, and Powershell. The employee, at the request of a supervisor, designs systems and codes computer programs to replace or change previously manual operations. It involves the performance of technical duties to maintain the daily operation of electronic data processing systems meeting the needs of the school district. Work is performed under supervision with wide leeway for independent performance of the job duties. Supervision may be exercised over technical and/or clerical staff.

TYPICAL WORK ACTIVITIES: *The typical work activities listed below, while providing representative examples of the variety of work assignments in the title, do not describe any individual position. Incumbents in this title may perform some or all of the following, as well as other related activities not described.*

Participates in the planning, designing and implementation of all aspects of the district computer network;

Recommends, plans, develops and implements network configuration changes and/or upgrades to maintain appropriate levels of service to user community;

Analyzes, identifies, and resolves communication problems occurring between servers, workstations, PCs, the Internet;

Operates the control console(s) of network systems to monitor performance, resolve problems and upgrade systems;

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Develops and monitors Local Area and Wide Area Network (LAN and WAN) performance and utilization statistics and prepares periodic reports for management summarizing network status;

Trains and instructs subordinate staff as needed, including operating system and network administration matters;

Keeps abreast of current developments in IT infrastructure and NOS software;

Writes equipment specifications and assists in the ordering of NOS hardware, software and related communications equipment;

Develops, designs, and implements a backup system adequate to meet the continued operation of the educational system;

Design new data processing systems;

Determines the kind of program necessary to convert manual operations to computer application;

Provides necessary documentation for new systems;

Designs screen formats and output reports;

Writes programs;

Debugs and tests programs;

Writes job procedures and instructions for the computer operator;

Modifies existing programs or develops new programs as necessary.

Performs related work as required.

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CHARACTERISTICS: Thorough knowledge of Windows Server, NOS software; thorough knowledge of network communication concepts as they relate to network topologies, communication and data transfer protocols, hubs, switches, routers, servers, and cabling; knowledge of Python, JAVA Script, HTML, CSS, and Powershell programming language; thorough knowledge of Transmission Control and Internet Protocols (TCP/IP); good knowledge of modern data processing and electronic communication principles, practices, procedures, and equipment; ability to create and maintain diagrammatic representations of complex network configurations; ability to plan, assign and supervise the work of subordinate employees; ability to develop effective working relationships with vendors, subordinates, district staff and other work contacts; ability to recognize, analyze and solve complex problems; initiative and resourcefulness; working knowledge of common techniques; working knowledge of the operation of computer systems; ability to recognize kinds of manual processes suitable for computer applications; ability to code efficiently; ability to document programs and to construct and understand flow charts; ability to prepare in technical vocabulary clear and complete instructions for computer operator; ability to work without supervision and to assign the work of others; conceptual ability; and efficiency.

MINIMUM QUALIFICATIONS: Either:

(A) Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a Bachelor's Degree in Computer Science, or Computer Programming and one (1) year of senior-level computer system engineering experience

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in a position involving the installation, and tuning Microsoft Server network operating system software and related hardware including one (1) year of experience as a programmer using Python, JAVA Script, HTML, CSS, Powershell language or equivalent programming language; or

(B) Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with an Associate's Degree in Computer Science, or Computer Programming and three (3) years of senior-level computer system engineering experience in a position involving the installation, and tuning Microsoft Server network operating system software and related hardware including three (3) years of experience as a programmer using Python, JAVA Script, HTML, CSS, Powershell language or equivalent programming language; or

(C) Graduation from high school or possession of a high school equivalency diploma and five (5) years of experience as described in (A) and (B) above including one (1) year of experience as a programmer using Python, Java JAVA Script, HTML, CSS, Powershell language or equivalent programming language; or

(D) An equivalent combination of experience and training as defined by the limits of (A), (B), and (C) above.

SPECIAL NOTE: Nationally recognized system certifications such as Certified Novell Engineer (CNE), Microsoft Certified Systems Engineer (MCSE) and/or Cisco Certified Network Associate (CCNA) will be considered as meeting 3 months of experience for each certification, for a maximum of up to twelve (12) months of experience.

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NOTE: Your degree or credits must have been awarded by a college or university accredited by a regional, national, or specialized agency recognized as an accrediting agency by the U.S. Department of Education/U.S. Secretary of Education. If your degree or credits were awarded by an educational institution outside of the United States and its territories, you must provide independent verification of equivalency. A list of acceptable companies who provide this service can be found on the Internet at: <https://www.cs.ny.gov/jobseeker/degrees.cfm>. You must pay the required evaluation fee.

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Jurisdictional Class: Competitive

Public Hearing: n/a

NYS Civil Service Commission Approval: n/a

Reviewed and placed in Classplan: 10/15/2024