Nature of Work
Under general supervision, performs work of considerable difficulty to provide software support for major software systems which affect the entire user agency. Installs and maintains software systems such as RACF, MVS, and JES. Monitors operations, debugs the system when problems arise, and controls and updates the software packages which interface with application programs of various users. Trains and consults with lower level systems programmers on complex aspects of installation of software systems and the compatibility with the existing environment. Provides technical guidance to programmer analysts in methods of interfacing application programs with the operating systems and the database management on data communication systems. Being on-call and irregular hours are required of the position. Performs related work as required.

Distinguishing Characteristics
Systems Programmer 2 performs complex technical and/or lead work. Systems Programmer 2 provides support for major software systems; errors in judgment at this level could bring down the entire central mainframe system.

Examples of Work
Installs, implements, tests and evaluates subsystem software package uses statewide; selects the correct parameters for systems operation and system modifications; tests system modifications which are provided by vendors, identifies and corrects errors.
Provides technical expertise to lower level systems programmers in the installation and testing of vendor-supplied system modifications, evaluating test results and resolving problems of a very technical nature.
Monitors computer performance to identify, correct and/or improve operational efficiency of the hardware/software configuration.
Supervises the evaluation and installation of software packages by other Systems Programmers, identifying and correcting potential software problems in the vendor supplied packages and/or modifications.
Documents the availability of new software subsystems by writing information for the first-time users in lay terms and for the highly technical users in technical terms.
Recovers lost files or restores damaged files in the systems.
Studies current technical literature to become familiar with new products.
Attends demonstration meetings held by hardware/software vendors to evaluate new products.
Adjusts systems software to improve function and performance.
Knowledge, Skills and Abilities
Knowledge of two or more computer programming languages (COBOL, PL/1, assembler, etc.).
Knowledge of the use and limitations of data processing equipment and of systems design techniques.
Knowledge of the design, execution and operation of extremely complex system software such as operating systems, database management or database communications systems.
Knowledge of programming languages and job control language used to create and modify host resident software packages.
Knowledge of systems analysis techniques.
Skill in the use of application programming languages, job control language, and host resident software packages.
Skill in programming and system design.
Skill in the generation, installation, and maintenance of resident software packages.
Skill in the evaluation of systems and programs.
Ability to solve data processing problems logically.
Ability to read, understand, and use technical manuals.
Ability to coordinate the efforts of the groups involved in installing or modifying hardware or software systems.
Ability to evaluate technical proposals and to communicate effectively with user personnel and others on technical issues, both orally and in writing.

Minimum Qualifications
Training: Graduation from an accredited four-year college or university with twelve semester hours credit in computer science.
Substitution: Additional experience as a programmer/analyst or systems programmer may substitute for the required training on a year-for-year basis. Only systems programming experience can substitute for the twelve semester hours credit in Computer Science.
Experience: Four years of full-time or equivalent part-time paid experience as a systems programmer.
Substitution: A Certificate in Computer Programming (CCP) in systems programming may substitute for one year of the required systems' experience.

Established: 3/21/96
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