ASHEVILLE, NORTH CAROLINA

Classification Specification

Software Engineer, Senior
Job Code: 2575
FLSA: Exempt

Purpose of Classification:

The purpose of this classification is to develop and deploy custom software applications and software integrations and to participate in data management and application infrastructure architecture development and deployment.

Distinguishing Characteristics:

This classification is the second level in the Software Engineer Series and is distinguished from lower levels in this job family by increasing degrees of scope, independence, responsibility, decision-making, as well as providing guidance and training to less experienced Software Engineers.

Essential Functions:

The following duties are normal for this position. The omission of specific statements of the duties does not exclude them from the classification if the work is similar, related, or a logical assignment for this classification. Other duties may be required and assigned.

Plans, builds, and deploys new software applications: creates, maintains, and utilizes build and delivery services; establishes standards and procedures for City software development; implements process to move approved items from development to production; prepares related written documentation and technical manuals; updates and maintains existing custom software; implements security and bug fixes; builds custom software integrations for both commercial and in-house applications; maintains version control repositories; reviews logs and reports for suspicious activity and/or degradation in performance; and makes recommendations regarding new software purchases and/or requests.

Builds, monitors and maintains data infrastructure; establishes best practices for access and control to data;

coordinates with other department and City staff to ensure data standardization, quality, and availability; ensures compliance with data privacy and security protocols; maintains version control repositories; reviews logs and reports for suspicious activity and/or degradation in performance; and provides technical advice and recommendations regarding data infrastructure and related privacy and security concerns.

Leads complex troubleshooting activities: receives and responds to escalated software issues and concerns; provides problem identification and resolution recommendations for urgent and complex technical problems; and coordinates problem resolution with vendors, as needed.

Provides guidance and training to department staff: reviews City digital portfolio to ensure compliance with standards and accessibility requirements; reviews code written by other staff members for completeness, accuracy, and conformance to department standards; provides guidance and training regarding accessibility tools, components of software development and operations, digital privacy and other issues; and provides technical advice and guidance regarding software architecture and coding practices.

Maintains an awareness of new applications, technologies, technical methods, trends, and advances in the profession: reviews professional publications, technical manuals, and websites to increase knowledge of software development and deployment; and attends conferences, workshops, and training sessions as appropriate.

Communicates with supervisor, other City employees, vendors, outside agencies and organizations, and other individuals as needed to coordinate work activities, review status of work, exchange information, or resolve problems.

Processes a variety of documentation associated with department/division operations, within designated timeframes and per established procedures: receives, reviews, prepares, completes, processes, forwards or retains as appropriate various forms, reports, correspondence, bounce email reports, billing alerts, vulnerability reports, accessibility reports, application event logs, and other documentation; compiles data for further processing or for use in preparation of department reports; and maintains computerized and/or hardcopy records.

Operates a personal computer to enter, retrieve, review or modify data, utilizing word processing, spreadsheet, database, Internet, e-mail, or other software; and operates general office or other equipment as necessary to complete essential functions.

Additional Functions:

Performs other related duties as required.

Minimum Qualifications:

Bachelor's Degree in Computer Science, Mathematics, or a related field required; supplemented by five years of experience in software engineering; or any equivalent combination of education, training, and experience which provides the requisite knowledge, skills, and abilities for this job.

Specific License or Certification Required: None.

Specific Knowledge, Skills, or Abilities: Must be able to demonstrate proficiency in performance of the essential functions and learn, comprehend, and apply all City or departmental policies, practices, and procedures necessary to function effectively in the position.

Performance Aptitudes:

Data Utilization: Requires the ability to evaluate, audit, deduce, and/or assess data using established criteria. Includes exercising discretion in determining actual or probable consequences and in referencing such evaluation to identify and select alternatives.

Human Interaction: Requires the ability to act as lead person or crew leader, providing guidance to a work unit, coordinating activities, and reviewing work of the unit.

Equipment, Machinery, Tools, and Materials Utilization: Requires the ability to overhaul, restore, renovate, construct, and/or rebuild equipment, machinery, or objects, requiring adherence to prescribed standards and specifications. Requires the ability to operate and control the actions of the same equipment, machinery, and/or objects.

Verbal Aptitude: Requires the ability to utilize a wide variety of reference, descriptive, advisory and/or design data and information.

Mathematical Aptitude: Requires the ability to perform addition, subtraction, multiplication and division; ability to calculate decimals and percentages; may include ability to perform mathematical operations involving basic algebraic principles and formulas, and basic geometric principles and calculations.

Functional Reasoning: Requires the ability to apply principles of influence systems, such as motivation, incentive, and leadership, and to exercise independent judgment to apply facts and principles for developing approaches and techniques to resolve problems.

Situational Reasoning: Requires the ability to exercise judgment, decisiveness and creativity in situations involving the evaluation of information against sensory, judgmental, or subjective criteria, as opposed to that which is clearly measurable or verifiable.

ADA Compliance:

Physical Ability: Tasks require the ability to exert light physical effort in sedentary to light work, but which may involve some lifting, carrying, pushing and/or pulling of objects and materials of light weight (5-10 pounds). Tasks may involve extended periods of time at a keyboard or workstation.

Sensory Requirements: Some tasks require the ability to perceive and discriminate colors or shades of colors, sounds, and visual cues or signals. Some tasks require the ability to communicate orally.

Environmental Factors: Essential functions are regularly performed without exposure to adverse environmental conditions.

The City of Asheville is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.