ASHEVILLE, NORTH CAROLINA

Classification Specification

Software Engineer
Job Code: 2580
FLSA: Exempt

Purpose of Classification:

The purpose of this classification is to design, develop, install, and maintain software applications and solutions for City departments.

Distinguishing Characteristics:

This classification is the entry level in the Software Engineer series.

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.

Identifies user and public business needs for software applications: collects information from users; identifies alternative business solutions; develops programs and applications to address needs; defines input and output system requirements; prepares graphic and narrative representations of solutions; determines hardware/software requirements; performs cost-benefit, feasibility, and impact analysis; and prepares and documents program specifications.

Designs, modifies, and maintains software applications: writes code for new applications; ensures compliance with department design and coding standards; writes and modifies software using a variety of applications, frameworks, and programming languages; and designs user friendly interfaces and logic screen flow.

Tests software applications: runs tests; ensures code meets defined specifications and requirements; deploys

software to test and production environments; creates and maintains related procedures; monitors and analyzes performance of software; identifies defects and deficiencies; provides resolutions to issues and corrects programming errors; communicates software test results with users; maintains data integrity; and prepares program documentation according to department standards.

Implements new or upgrades/changes existing software applications: integrates new software components into a fully functional software system; performs software verification and quality assurance procedures; audits applications for vulnerabilities, errors, and standards compliance; and updates and re-factors code as needed.

Maintains software functionality: gathers and incorporates user feedback to improve usability; researches and interprets legal web accessibility requirements; identifies inaccessible City web applications and content; and repairs or creates work arounds for inaccessible web applications.

Evaluates commercially available software applications: conducts technical reviews, such as accessibility, data privacy, and integration feasibility; makes recommendations and provide advice regarding applications; coordinates with vendors, as needed; provides technical training; and creates resource materials and documentation.

Receives and responds to work orders regarding City enterprise systems: asks questions and assesses problem; determines priority of request; identifies, researches, and resolves technical problems; designs new or modifies existing configurations to meet users' needs; and ensures that enterprise system functions are in compliance with applicable policies, procedures, and rules.

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 operations and design tools and standards; and attends conferences, workshops, and training sessions as appropriate.

Communicates with supervisor, other City employees, vendors, the public, 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, application logs, invoices, contracts, specifications, enterprise architecture, technology standards, application delivery, training documents, project plans, data visualizations, 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, presentation, 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 three years of experience in software application support and development; 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 work with and apply principles of persuasion and/or influence over others to coordinate programs or activities of a project, and resolve typical problems associated with the responsibilities of the job.

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 with fractions; may include ability to compute discount, interest, and ratios; may include ability to calculate surface areas, volumes, weights, and measures.

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.