UNIVERSITY OF SOUTHERN CALIFORNIA

Software Quality Assurance Specialist

Job Code: 165855

Grade: TJ
OT Eligible: Yes
Comp Approval: 3/14/2012

JOB SUMMARY:
Coordinates the quality assurance of complex software applications including unit, integration and regression testing. Writes and modifies test cases based on functional specifications written by programmers/analysts. Ensures quality of administrative software applications using a quality assurance method written for the university. Establishes software quality standards for life cycle, documentation, development methods, testing, maintenance and development of quantitative measurements and techniques for measuring software quality. Defines functions to be tested, develops quality plans, creates a quality assurance hardware/software environment for new development and unit testing, creates an area for integration testing and creates a formal test/regression test area. Uses utilities to move source code from one environment to another.

JOB ACCOUNTABILITIES:

Coordinates the quality assurance of complex software applications. Defines functions to be tested, develops quality plans, creates a quality assurance hardware/software environment for new development and unit testing, creates an area for integration testing and creates a formal test/regression test area.

Ensures quality of administrative software applications using a quality assurance method written for the university. Establishes software quality standards for life cycle, documentation, development methods, testing and maintenance and development of quantitative measurements and techniques for measuring software quality.

Writes and verifies test cases for quality assuring software applications from written functional analyses.

Writes and develops functional specifications for software applications.

Reviews and evaluates software quality assurance products and services for applicability to in-house needs.

Reviews and interprets system design and specifications to include in defining a matrix of functions for writing test cases.

Develops test data for use exclusively with functional test cases.

Plans and schedules when specifications must be written for which functions, test case drafts are due and test environment must be ready on platforms before testing can begin. Coordinates with the software project manager, architect, analyst and programmers to define testing schedules. Plans and schedules staff to run which test cases.

Gathers data used to develop a budget. Obtains prices for software and/or hardware needed to create a specific test environment.

Provides leadership, guidance and direction to programmers in defining and creating the specific test environments needed for unit, integration and regression testing. Provides leadership, guidance and direction to data entry operators used in
integration and regression testing. Schedules work, sets priorities, establishes deadlines, reviews work and ensures the timely completion of all work by staff, as assigned.

Analyzes software anomalies identified during formal testing procedures and communicates possible source of errors to the programmers.

Trains end users on quality assurance techniques and/or to run core test cases. Teaches techniques by conducting hands-on workshops. Provides support for resolution of user/production issues and assistance with end user training, as needed.

Creates detailed reports of testing outcome on a regular basis. Projects end results based on written functional specifications to test against.

Establishes and maintains test database. Ensures data is complete and accurate.

Stays informed of new developments and technologies by reading journals and other pertinent publications, maintaining contact with vendors, and participating in professional organizations, meetings and seminars.

*Select E (ESSENTIAL), M (MARGINAL) or NA (NON-APPLICABLE) to denote importance of each job function to position.

**Emergency Response/Recovery:**

In the event of an emergency, the employee holding this position is required to "report to duty" in accordance with the university’s Emergency Operations Plan and/or the employee’s department’s emergency response and/or recovery plans. Familiarity with those plans and regular training to implement those plans is required. During or immediately following an emergency, the employee will be notified to assist in the emergency response efforts, and mobilize other staff members if needed.

**Job Qualifications:**

**Minimum Education:**

Bachelor's degree
Combined experience/education as substitute for minimum education

**Minimum Experience:**

3 years

**Minimum Field of Expertise:**

General knowledge of formal software testing procedures, documentation procedures and technical specification-writing procedures. Knowledge of operating environments. Advanced knowledge of desktop and project workplan applications. Experience with databases. Knowledge of client/server applications. Knowledge of Internet Web browser technology.

**Skills: Administrative:**

Communicate with others to gather information
Coordinate work of others
Customer service
Gather data
Research information
Understand and apply policies and procedures
Skills: Other:

Analysis
Assessment/evaluation
Conceptualization and design
Knowledge of applicable laws/policies/principles/etc.
Lead/guidance skills
Organization
Planning
Problem identification and resolution
Project management
Scheduling
Teaching/training

Skills: Machine/Equipment:

Calculator
Computer network (department or school)
Computer network (university)
Computer peripheral equipment
Fax
Personal computer
Personal mobile communication devices
Photocopier

Supervises: Level:

Leads one or more employees performing similar work.

Comments:

Evening or weekend work may be necessary to meet deadlines.

SIGNATURES:

Employee: ____________________________ Date: ____________________________

Supervisor: ____________________________ Date: ____________________________

The above statements are intended to describe the general nature and level of work being performed. They are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required of personnel so classified.

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