UNIVERSITY OF SOUTHERN CALIFORNIA

Research Programmer II

Job Code: 165347

Grade: TK
OT Eligible: No
Comp Approval: 8/28/2008

JOB SUMMARY:
Provides programming support to a research project. Develops or modifies large and complex system projects or as a specialist provides technical consulting to researchers on complex projects. Formulates and defines system scope and objectives. Devises or modifies procedures to solve complex problems. Utilizes creativity and innovation to solve conceptual programming problems raised by cutting edge research. Prepares detailed specifications. Creates program design, coding, testing, debugging, documentation and maintenance. Works under minimal supervision at a high level of technical proficiency on all phases of programming. Makes technical presentations and demonstrations at conferences and/or meetings.

JOB ACCOUNTABILITIES:

<table>
<thead>
<tr>
<th>*E/M/NA</th>
<th>% TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

Serves as lead programmer or technical specialist on a research project(s). Develops or modifies large and complex system projects. Establishes project plans and schedules and monitors progress providing status reports as required. Utilizes creativity and innovation to solve conceptual programming problems raised by cutting edge research.

Participates in research projects. Contributes to research designs, develops prototype implementations, and participates in the preparation of papers describing the research.

Oversees the design, coding, testing, debugging and documentation activities of project staff.

Interfaces with researchers to identify and determine requirements. Conducts detailed systems analysis to define system scope, objectives and implementation approach.

Develops system definition, architecture and detailed needs analysis including hardware and software recommendations. Proposes alternative approaches and conducts evaluation and comparison.

Collaborates with colleagues on research ideas and solutions. Works with staff and/or students providing guidance in system design and implementation.

Establishes and implements user training programs, tutorials and other materials necessary to present and support research results.

Suggests new avenues for research. Recognizes opportunities to adapt results for novel applications.

Contributes text to project reports and technical papers.

Takes primary responsibility for system demonstrations (preparation, setup, and delivery) at conferences and funder events.

Makes technical presentations and demonstrations at conferences and/or meetings.
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.

Performs other related duties as assigned or requested. The university reserves the right to add or change duties at any time.

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

**EMERGENCY RESPONSE/RECOVERY:**

- **Essential:**
  - Yes: 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:**
- Master’s degree
- Combined work experience and education as equivalent

**Minimum Experience:**
- 3 years

**Minimum Field of Expertise:**
- Relevant work experience to provide strong technical knowledge of programming and analysis as well as senior or lead experience. Demonstrated ability to stand in for researchers as circumstances require. Demonstrated creativity and innovation in solving conceptual programming problems.

**Preferred Experience:**
- 5 years

**Skills:**
- Analysis
- Assessment/evaluation
- Communication -- written and oral skills
- Conceptualization and design
- Knowledge of applicable laws/policies/principles/etc.
- Lead/guidance Skills
- Organization
- Planning
- Problem identification and resolution
- Public speaking/presentations
- Research
- Scheduling
- Teaching/training

Skilled in:
Applications/systems development methodologies
Mathematics
Operating systems
Programming languages
Software design tools

Skills: **Machine/Equipment:**

- Computer network (department or school)
- Computer network (university)
- Computer peripheral equipment
- Fax
- Personal computer
- Photocopier

Supervises: **Level:**

- Leads employees performing similar work on a project basis.
- May oversee student and/or temporary workers.

**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.

The University of Southern California is an Equal Opportunity Employer