UNIVERSITY OF SOUTHERN CALIFORNIA
Supervising Computer Scientist
Job Code: 199411

Grade: 00
OT Eligible: No
Comp Approval: 8/27/2009

JOB SUMMARY:
Directs research project(s) and supervises other computer scientists on a project basis. Provides research support on problems of a diverse scope and executes research projects in collaboration with others. Generates research ideas and solutions to complex computer science problems. Develops research funding and manages project budgets.

JOB ACCOUNTABILITIES:

<table>
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<tr>
<th>% TIME</th>
<th>Supervises research efforts. Supervises the activities of one or more research projects’ technical and support staff. Determines methods and procedures on new assignments and provides guidance to research staff members.</th>
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<td>______</td>
<td>Provides technical leadership and development of a research group. Applies computer science principles and concepts in setting research directions, planning, coordinating, and executing research objectives. Contributes state-of-the-art technology and theories. Solves a wide-range of research problems in creative and effective ways. Selects methods and techniques for obtaining solutions.</td>
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<td>______</td>
<td>Directly or indirectly supervises all staff assigned to research group, sometimes through subordinate managers and supervisors. Determines staffing needs based on goals and objectives of unit. Determines and/or recommends unit salary administration including raises, promotions and reclassifications. Approves/disapproves all work guidance actions within unit.</td>
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<td>______</td>
<td>Develops budget for a research project(s). Monitors expenditures to ensure the project remains within the established budget.</td>
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<td>Provides budget forecasts, and adjusts project expenditures to stay within budgeted limits. Updates project plans with budget forecasts and timing of expected new funding. Communicates with management on financial status of project(s) as requested and needed for planning purposes.</td>
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<td>______</td>
<td>Acts as a spokesperson in representing a project(s) to funding agencies and in matters of technological achievement in a given area.</td>
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<td>Acts as a technical advisor to top management.</td>
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<td>Develops funding sources and originates research proposals for the purpose of obtaining funding to support leading-edge research.</td>
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<td>Prepares research reports. Reviews and prepares management reports for clients.</td>
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<td>Recruits and develops research staff to meet work requirements.</td>
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<td>Makes significant contributions to literature.</td>
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<td>______</td>
<td>Makes presentations at conferences, participates in workshops and meetings, and collaborates in specific areas of research. Represents university and/or unit, as assigned or appropriate.</td>
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</table>
Networks with professional counterparts inside and outside the university. Participates in professional associations to stay informed of new developments and technologies. Makes recommendations to senior management regarding technology changes based on developments in field and business needs.

Develops and implements security related procedures such as office opening and closing routines, recognition of duress signals and key controls. Coordinates security activities with University Public Safety Department. Promotes and maintains standards for security conscious awareness and behavior. Maintains knowledge of university's crime prevention and suppression programs and services. Ensures dissemination of security related information to staff.

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:**

Doctorate

Combined experience/education as substitute for minimum education

**Minimum Experience:**

7 years

**Minimum Field of Expertise:**

Advanced degree in computer science or related field such as solid state physics or microelectronics engineering. Supervisory skills. Demonstrated record of outstanding research contributions and experience in an area of computer science, technical proficiency, exceptional creativity, successful collaboration with others, and independent thought. Demonstrated reputation as an emerging leader in field with sustained performance and accomplishment. Demonstrated ability to conceptualize research directions, exert technical leadership, communicate technical ideas, coordinate individual contributions to a research program, and present research plans and results in a manner that will elicit favorable funding actions.

**Preferred Education:**

Doctorate

**Preferred Field of Expertise:**

Nationally recognized reputation for excellence in area of expertise.

**Skills:** Other:

Analysis

Assessment/evaluation
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Budget control
Budget development
Coaching
Communication -- written and oral skills
Conceptualization and design
Conflict resolution
Consulting
Counseling
Development/fundraising
Human resource process and employment knowledge
Interpretation of policies/analyses/trends/etc.
Interviewing
Knowledge of applicable laws/policies/principles/etc.
Networking
Organization
Planning
Problem identification and resolution
Project management
Public speaking/presentations
Research
Scheduling
Staff development
Statistical analysis
Supervisory skills
Teaching/training

Skilled in:
Applications/systems development methodologies
Database programming
Internet standards and protocols
Mathematics
Operating systems
Programming languages
Scientific programming
Web scripting and programming languages

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:
Supervises employees and/or student workers.

**Supervises: Nature of Work:**

- Research
- Technical

**Comments:**

Responsible for bringing in funding for a project sufficient to cover their salary and at least one full-time staff person (or 2 Graduate Research Assistants).

**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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