



USC University of
Southern California

Research Computing Associate (ITS)

Job Description

JOB INFORMATION

Job Code:	166909
Job Title:	Research Computing Associate (ITS)
FLSA Status:	Exempt
Supervisory:	
Job Family:	Systems Engineering
Job Family Group:	Information Technology
Management Level:	7 Individual Contributor

JOB SUMMARY

Provides direct outreach and support services for the Center for High-Performance Computing (HPC) to research faculty, staff, graduate students and academic programs at all university campuses. Provides technical support for HPC-related research projects and academic endeavors, fostering strong understanding of industry-leading trends and initiatives. Demonstrates ITS values in action.

JOB QUALIFICATIONS:

Education

Req	Pref	Degree	Field of Study	
X		Bachelor's degree		
	X	Bachelor's degree	Computer Science	Or
	X	Bachelor's degree	Computer Information Systems	Or
	X	Bachelor's degree	Information System Management - Network Management	Or
	X	Bachelor's degree	in related field(s)	

Additional Education

Check here if experience may substitute for some of the above education.

Combined experience/education as substitute for minimum education

Work Experience

Req	Pref	Work Experience	Experience Level
X		2 years	
	X	4 years	

Additional Work Experience

Check here if education may substitute for some of the above work experience.

Combined experience/education as substitute for minimum work experience

Knowledge, Skills and Abilities

Req	Pref	Functional Skills
X		Proficiency with fundamental programming skills (Bash, PERL, Python, or similar languages).
X		Knowledge of HPC storage (FC, SAS) principles, file systems (samfs/qfs, beegfs, zfs, etc.), and computer node storage (NFS).
X		Demonstrated experience providing technical support to research projects, and conducting research in a higher education environment.
X		Advanced understanding of HPC and high performance networking tools to support collaborative research, cloud storage, cloud computing and other research technology tools.
X		Experience using software methodologies to execute HPC process and software design, installation, implementation, modification, and compilation, with a thorough understanding of HPC topics, data and programming efforts.
X		Demonstrated knowledge of the research process, proposal lifecycle, data lifecycle and workflows, with experience with data-intensive and computation-intensive research workflows.
X		Familiarity with shared and distributed memory parallelism (OpenMP, MPI), and accelerators (GPUs).
X		Exceptional interpersonal skills, with demonstrated ability to tactfully, professionally, and credibly communicate with a variety of stakeholders including researchers, IT staff, IT leadership, and university administrators.
X		Demonstrated ability to think creatively about technical and/or non-technical challenges, analyze problems from multiple points of view, and adapt rapidly to changing technology and requirements.
X		Awareness of compliance regulations surrounding research data, including federal requirements and grant agency standards.
X		Ability to establish strong, positive working relationships and rapport with diverse groups of team members, and communicate technical details to non-technical audiences via documentation, training, teaching and public speaking.
X		Excellent time management skills, with a proven ability to successfully manage and prioritize multiple projects and plans, implement project specifications, report project status, identify delays, and raise concerns.
	X	Experience in high-performance computing and higher education.

Other Job Factors

JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
Contributes to the development and engagement of high performance computing (HPC) initiatives and projects in the development of testing procedures and production documentation. Interfaces with researchers, assessing and determining computational requirements that align with high-performance computing and contribute to workflows.				
Investigates, debugs, and addresses research inquiries via the customer service ticketing system, presenting complex technical concepts in a simple and straightforward manner. Develops, maintains and presents training and education efforts for researchers and academic programs, fostering strong understanding of industry-leading trends and initiatives and optimal HPC utilization.				
Bridges the HPC team's collaborative efforts to problem-solve and drive research and programming initiatives. Provides support at the institutional, regional, and national level to identify and promote research and development opportunities.				
Supports the vision for High-Performance Computing and all process improvement efforts within the team and across ITS. Aids the cultivation of an inclusive environment and a culture of trust and transparency, sharing information broadly, openly, and deliberately. Builds and maintains collaborative relationships with diverse team members, peers, and leaders. Actively embodies ITS values and behaviors (e.g., accountability, ethics, best-in-class customer service).				

Other Requirements

Essential:	Emergency Response/Recovery	Essential:	Mandated Reporter
	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		A mandated reporter who in his or her professional capacity has knowledge of, or reasonably suspects a person who is under the age of 18 years, elderly, or a dependent adult has been the victim of abuse or neglect must report the suspected incident.

Other Requirements

<i>Essential:</i>	<i>Emergency Response/Recovery</i>	<i>Essential:</i>	<i>Mandated Reporter</i>
	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.		The reporter must contact a designated agency immediately or as soon as practically possible by telephone or in writing within 36 hours. By virtue of the associated job duties, this position qualifies as a mandated reporter as required by state law and USC’s policy at: https://policy.usc.edu/mandated-reporters/
<i>Campus Security Authority (CSA)</i>			<i>Essential:</i>
By virtue of the associated job duties, this position qualifies as a Campus Security Authority as required by law and USC’s policy at: https://dps.usc.edu/alerts/clery/			No

ACKNOWLEDGMENTS

The above statements reflect the essential and non-essential functions as necessary to describe the principle contents of the job. They are not intended to be a complete statement of all work requirements or duties that may be required of the position. I understand that I may be asked to perform other duties as assigned. USC reserves the right to add or change duties at any time.

The University of Southern California is an Equal Opportunity Employer. USC prohibits discrimination on any basis protected under federal, state, or local law, regulation, or ordinance or university policies. All employment decisions are based on individual qualifications and business need.

I acknowledge receipt of this job description and its associated physical requirements. I have read and understand the job description and job requirements and agree to abide by their contents. I realize that duties may be requested of me that are not specifically stated herein. I understand that I will be expected to adjust to potential fluctuations in work volume. I understand that, if I have any questions about the essential functions or expectations of my position, my supervisor and/or HR partner are available to discuss them with me.

Print Employee Name

Signature

Date

Print Manager Name

Signature

Date

This job description describes the general nature and level of work required by the position. It is not intended to be an all-inclusive list of qualifications, skills, duties, responsibilities or working conditions of the job. The job description is subject to change with or without notice, and Management reserves the right to add, modify or remove any qualification or duty. Nothing in this job description changes the existing at-will employment relationship between the university and the employee occupying the position.