# Cloud Computing Solution Architect (ITS)
## Job Description

## JOB INFORMATION

| | |
|---|---|
| *Job Code:* | 166277 |
| *Job Title:* | Cloud Computing Solution Architect (ITS) |
| *FLSA Status:* | Exempt |
| *Supervisory:* | |
| *Job Family:* | Systems Engineering |
| *Job Family Group:* | Information Technology |
| *Management Level:* | 7 Individual Contributor |

## JOB SUMMARY

Supports cloud services configuration and operations, collaborating with researchers and key stakeholders in a broad range of disciplines to provide best-in-class cloud services. Configures and supports workloads in the cloud, automates cloud infrastructure maintenance, and builds new operational monitoring capabilities.

## 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 | in related field(s) | |

### Additional Education

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

| | |
|---|---|
| X | Combined experience/education as substitute for minimum education |

### Work Experience

| Req | Pref | Work Experience | Experience Level | |
|---|---|---|---|---|
| X | | 3 years | in information technology, computer science and/or engineering, cloud computing, or related fields | |
| | X | 5 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 | | In-depth knowledge of and support experience with migrating server workloads to IaaS platforms (e.g., AWS, Azure, GCP). |

## Knowledge, Skills and Abilities

| Req | Pref | Functional Skills |
|-----|------|-------------------|
| X | | Knowledge of and support experience with virtualization technologies (e.g., VMware). |
| X | | Expertise in software development and engineering. |
| X | | Proficiency with one or more programming languages (e.g., Python, Java, C++). |
| X | | Extensive knowledge of RESTful APIs and integration with cloud data providers. |
| X | | Experience with source control, testing, and continuous integration techniques for both cloud applications and infrastructure. |
| X | | Experience with DevOps solution development and deployment paradigms. |
| X | | Experience with the build, test, and release of applications in the delivery pipeline. |
| X | | Demonstrated expertise with Linux, containerization and orchestration tools (e.g., Kubernetes). |
| X | | Experience with cloud-based automation tools and processes. |
| X | | Experience provisioning and maintaining cloud-based infrastructure. |
| X | | Proven ability to provide both detailed information and summaries to management-level individuals and groups. |
| X | | Excellent organizational skills with ability to set priorities and manage multiple projects. |
| X | | Demonstrated ability to interpret, analyze, and apply pertinent service level agreements, policies, procedures, regulations, and other requirements, and turn them into actionable outcomes. |
| X | | Excellent written and oral communication skills, able to interact with a diverse community of colleagues and stakeholders. |
| X | | Experience developing positive working relationships and a strong rapport with team members. |
| | X | Bachelor's degree in a relevant field (e.g., computer science, computer information systems, computational sciences and engineering). |
| | X | AWS Solution Architect Certification. |
| | X | Familiarity with HPC environments, job schedulers (e.g., Slurm), and associated storage models. |
| | X | Exposure to research process and data- and computation-intensive research workflows. |

## Other Job Factors

## JOB ACCOUNTABILITIES

| | % Time | Essential | Marginal | N/A |
|---|---|---|---|---|
| Collaborates with developers, engineers, and business analysts to ensure cloud infrastructure configuration and operations meet the needs of a broad range of campus customers. Standardizes, builds, and supports a portfolio of reusable cloud components, services, and interfaces to increase the efficiency and effectiveness of cloud infrastructure. | | | | |
| Understands researcher requirements and collaborates with relevant stakeholders to design and implement solutions for research projects. Provides varied research IT services as required (e.g., applications programming development and maintenance, research systems and workflow analysis), as well as troubleshooting support for issues escalated by researchers. Analyzes highly complex, diverse, and potentially conflicting data to identify root causes. | | | | |
| Develops and maintains tutorials and training resources. Facilitates innovation and continuous improvement by leveraging latest industry knowledge. Continually develops skills, knowledge, and abilities in cloud technologies. Maintains awareness of emerging technologies and makes recommendations on adoption. | | | | |
| Promotes an environment that fosters inclusive relationships and creates unbiased opportunities for contributions through ideas, words, and actions that uphold principles of the USC Code of Ethics. | | | | |

## 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

| Essential: | Emergency Response/Recovery | Essential: | Mandated Reporter |
|---|---|---|---|
| | 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/ |

| Campus Security Authority (CSA) | | Essential: |
|---|---|---|
| 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.