USC University of Southern California

Software Engineer
Job Description

JOB INFORMATION

Job Code:	167515
Job Title:	Software Engineer
FLSA Status:	Exempt
Supervisory:	May oversee staff, students and/or resource employees
Job Family:	Systems Engineering
Job Family Group:	Information Technology
Management Level:	7 Individual Contributor

JOB SUMMARY

Designs, develops, and maintains software solutions and frameworks, adhering to functional and technical requirements. Evaluates information needs and collaborates with a broad range of customers, partners and key stakeholders. Responsible for developing clean code and conducting regular code reviews. Evaluates systems flow, data usage and work processes, and investigates problem areas. Documents all stages of the software development process, ensuring integrity of code by peer review.

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 Engineering	Or
	X	Bachelor's degree	Electrical Engineering	

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		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		Two years' experience with programming and documentation procedures, methods and operator instructions.
X		Experience conducting unit/performance tests, systems integration and user acceptance.
X		Demonstrated experience with one or more relevant programming languages, able to gain needed contexts for domains.
X		Comprehensive knowledge of architecture, design and development of software solutions.
X		Excellent organization, planning, analytical and problem-solving skills.
X		Ability to provide technical expertise and creative solutions while aligned to organizational objectives and customer needs.
X		Experience weighing economic costs and values objectively, supporting coworkers on a project basis, and contributing to discussions in a civil manner.
X		Excellent written and oral communication skills, able to provide both detailed information as well as summaries to varied audiences.
X		Substantial knowledge of security concepts, familiarity with secure code development techniques, and understanding of scalable and automated solutions.
X		Ability to build strong, positive working relationships and rapport with diverse groups of team members.
	X	Four years' experience in IT/programming.
	X	Proficiency with Python, Javascript, C/C++, Java, Ruby and/or other advanced programming languages.
	X	Experience with Unix/Linux programming and/or administration.
	X	Experience in higher education.

Other Job Factors

JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
Writes, edits and updates production-ready software application code that's easily testable. Builds, optimizes, and maintains complex web-based applications using varied programming technologies (e.g., Python, Django framework, React library). Supports compliance, security governance, and policies by embedding industry standards and quality measures into workflows.				
Designs code aligned with overall service architecture. Utilizes abstractions and code isolation, actively searching for security vulnerabilities. Accounts for edge cases and errors, writing and performing unit tests in accordance with testing pyramid, and employing systematic approaches for debugging cross-service issues. Shares data with relevant stakeholders and recommends solutions to enhance business value.				
Manages work activities against the software development lifecycle. Ensures tasks are prioritized appropriately, and that team commitments and expectations are appropriately sized for continuous integration and incremental delivery. Anticipates and communicates production obstacles/delays (e.g., ballooning cost) and improvement opportunities before escalation is required.				
Evaluates systems flow, data usage and work processes, and ensures developed code is maintainable once implemented. Ensures integrity of code by peer review. Stays current with technology, industry standards and best practices. Facilitates innovation and the creation and initiation of continuous process improvements. Leverages the latest technology and anticipates impact on departmental/university software services.				
Independently handles risk and change, following team/project philosophies, operational data, and engineering strategies in uncertain situations. Leverages insights on customer pain points and needs to provide customer-focused solutions. Builds and maintains effective customer and stakeholder relationships. Handles and routes requests to appropriate parties for tracking and resolution, providing timely follow-ups and feedback.				
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. Builds relationships with fellow engineers, helping resolve each other's problems when requested, and seeking mentorship or				

JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
guiding junior staff. Performs other related duties as assigned or requested. The university reserves the right to add or change duties at any time.				

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 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.		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. 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.