



## Lead Analyst, Vulnerability Management Job Description

### JOB INFORMATION

Job Code:	166073
Job Title:	Lead Analyst, Vulnerability Management
FLSA Status:	Exempt
Supervisory:	Supervises student, temporary and/or resource workers.
Job Family:	IT Security
Job Family Group:	Information Technology
Management Level:	7 Individual Contributor

### JOB SUMMARY

Maintains the tools, strategy and framework for environment scans and assessments. Reviews and mitigates penetration tests and recommends fixes and security patches required in the event of security breaches. Produces monthly exception and management reports, implements remediation required by audits, develops program-quality metrics, and reviews findings to eliminate risks. Leveraging their asset inventory, provides reporting and governance for vulnerability impact, monitors the security of vendors and third parties, and helps develop the university's next-generation vulnerability management program.

### JOB QUALIFICATIONS:

#### Education

Req	Pref	Degree	Field of Study
X		Bachelor's degree	

#### 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		5 years	
	X	7 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		Ability to perform vulnerability assessments and penetration testing using manual testing techniques, scripts, commercial and open source tools.
X		Knowledge with prioritizing remediation activities with operational teams through risk ratings of vulnerabilities and assets.

## Knowledge, Skills and Abilities

Req	Pref	Functional Skills
X		Ability to read, write and modify scripts for automation of vulnerability management tasks.
X		Working experience with industry frameworks (CSF, ISO, COBIT, etc.)
X		Experience in deploying and operating vulnerability scanning infrastructure and services.
X		Demonstrated knowledge of industry standards regarding vulnerability management, including Common Vulnerabilities and Exposures (CVE), Common Vulnerability Scoring System (CVSS) and Open Web Application Security Project (OWASP).
X		Demonstrated knowledge of technology and security topics including network security, wireless security, application security, infrastructure hardening, security baselines, and web server and database security.
X		Proven analytical and problem-solving skills, with exceptional attention to detail. Excellent written and oral communication skills. Ability to teach/train others.
	X	Knowledge of computer networking concepts, protocols and network security methodologies.
	X	Knowledge of risk management processes (e.g., methods for assessing and mitigating risk).
	X	Knowledge of specific operational impacts of cybersecurity lapses.
	X	Knowledge of host/network access control mechanisms (e.g., access control list, capabilities lists).
	X	Knowledge of system and application security threats and vulnerabilities (e.g., buffer overflow, mobile code, cross site scripting, Procedural Language/Structured Query Language [PL/SQL] and injections, race conditions, covert channel, replay, return-oriented attacks, malicious code).
	X	Knowledge of systems diagnostic tools and fault identification techniques.
	X	Knowledge of system administration, network and operating system hardening techniques.
	X	Knowledge of network protocols such as TCP/IP, Dynamic Host Configuration, Domain Name System (DNS), and directory services.
	X	Knowledge of penetration testing principles, tools and techniques.
	X	Skill in conducting vulnerability scans and recognizing vulnerabilities in security systems.
	X	Skill in performing impact/risk assessments.
	X	Skill in the use of penetration testing tools and techniques.
	X	Ability to identify systemic security issues based on the analysis of vulnerability and configuration data.

## Other Job Factors

- Ability to work evenings, weekends and holidays as the schedule dictates.

## JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
Maintains tools used for conducting vulnerability scanning. Leverages asset inventory and patches management systems to provide reporting and governance for vulnerability impact and remediation progress. Monitors security vulnerability data from vendors and third parties. Collates security incident and event data to produce monthly exception and management reports.				
Establishes strategies and frameworks for performing validation of scanning results. Performs asset and network discovery activities, helping ensure full coverage of vulnerability management environment. Performs system and application vulnerability testing. Reviews, assesses and mitigates penetration tests and vulnerability assessments on information systems and infrastructure.				
Recommends fixes, security patches, and other measures required in the event of a security breach. Reviews penetration test findings with system owners and works to eliminate or remediate risks associated with those findings. Prioritizes remediation activities with system owners in line with vulnerability and asset risk ratings. Implements or coordinates remediation required by audits and documents exceptions as necessary.				
Helps to develop and continuously update the university's next generation vulnerability management program (e.g., formalized assessment criteria, integrated asset inventory, remediation tracking and governance). Develops program quality metrics as both program performance indicators and enterprise risk indicators. 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.				

## JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
Stays current with any changes in legal, regulatory, and technology environments which may affect operations. Ensures senior management and staff are informed of any changes and updates in a timely manner. Establishes and maintains appropriate network of professional contacts and memberships in professional organizations. Attends meetings, seminars and conferences, and maintains required/desirable certifications, if applicable.				

## Other Requirements

<i>Essential:</i>	<i>Emergency Response/Recovery</i>	<i>Essential:</i>	<i>Mandated Reporter</i>
	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: <a href="https://policy.usc.edu/mandated-reporters/">https://policy.usc.edu/mandated-reporters/</a>
<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: <a href="https://dps.usc.edu/alerts/clery/">https://dps.usc.edu/alerts/clery/</a>			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.