

University of Virginia

Job Summary

Job Code:	Job Title:	Systems Engineer I
UVA Survey Code:	UVA Survey Code Title:	
Pay Band:	Career Path:	Systems Engineering, Design & Development
FLSA Status:	Management or Individual Contributor:	Individual Contributor

Position Summary: Describe below the primary purpose and function of this job

Support the stability, integrity, and efficient operation of the in-house information systems that support core university functions. This is achieved by developing, monitoring, maintaining, supporting, and optimizing software and associated hardware and operating systems. Provide functional and empirical analysis related to the design, development, and implementation of systems, including hardware, utility software, development software, and diagnostic software. Provide system integration and security plans and implementation.

Key Roles & Responsibilities: List up to 6 key roles and responsibilities of this job.

1. Assist in the design and development of configurations, complex workflows, and system integration procedures. Document deployed systems and their integration points. Execute test plans and perform regression testing and white box testing as modules are integrated into the end systems.
2. Collaborate on the formulation and definition of specifications for operating software programming applications or assist with the modification/maintenance of existing applications using engineering releases and utilities from the manufacturer.
3. Perform the initial configuration and conduct ongoing enhancements to the operating system's application architecture; perform application upgrades; application tuning. Support data conversion processes; development of interfaces; assistance with performance and load testing; and the application security environment.
4. Design, code, test, debug, and document programs. Participate in the development of test strategies, devices and systems. Design and develop software to automate, monitor, test, deploy, and support systems. Perform regular tests of the high availability, disaster recovery, security, and backup processes. Maintain the staging environment used for final pre-deployment testing and verification.
5. Provide ongoing technical assistance to customers regarding applications and participate in upgrades and system enhancement projects. May assist other systems programmers to effectively utilize the systems developed.
6. Implement disaster recovery procedures, and ensure that systems meet high availability standards.

Expertise: Describe the requirement for knowledge and expertise about the subject area as well as how various parts of the University work together to achieve objectives. Explain the degree of understanding required of the industry and university environment.

Incumbent is required to have a basic understanding of his/her discipline including all required certifications as well as a basic understanding of the business environment of a large university system. Incumbent is expected to maintain currency of knowledge with respect to relevant state-of-the-art technology, equipment, and/or systems.

Incumbent should have basic knowledge of computer and network architectures; systems analysis and software development in a client/server environment using current development tools, system administration, TCP/IP networking; relational database structured query language (SQL); object oriented design; and multiple programming languages. Incumbent should be comfortable working with various operating systems and hardware solutions, non-vendor specific and open source. Incumbent must also have the ability to determine computer problems and coordinate hardware and/or software solutions; plan, implement, test, and troubleshoot system software; install, test, and maintain operating software and hardware; document work in progress and write technical instructions; and investigate and analyze information and draw conclusions.

Problem Solving: Describe the nature and complexity of the problems this position encounters on a recurring basis. Include information regarding the level of innovation required, if any, and include mention of environmental factors that may add to the complexity of resolving issues.

Interactions are typically with fellow team members, but the incumbent may have interactions with assigned student, faculty, or staff clients. Incumbent should possess good verbal and written communication skills to convey technical guidance and information to users and to provide excellent customer service.

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Nature & Area of Impact: To what degree does this job affect the University (i.e., through interactions with faculty or students, making decisions, defining or setting strategy, etc.)? What is the breadth of the impact that this job has, either positive or negative (i.e., affects own team, department, function, business unit, entire university, etc.)?

Impact is typically limited to the team/department for which the incumbent works. Daily work quality can affect the productivity of students, faculty and/or staff.

Interactions / Interpersonal Skills: Describe the nature and level of interactions this job has with others, both internally and externally. Explain any specific interpersonal skills necessary to successfully perform this role (i.e., negotiation skills, represents business at external events or to governmental bodies, etc.).

Interactions are typically with fellow team members. Incumbent will have interactions with clients and should possess good customer service skills. Incumbent should also be able to communicate technical guidance and information to users.

Distinguishing Characteristics

This is the entry-level job for the discipline.

- **Skills:** Level 1 incumbents are developing skills but possess a basic knowledge of the discipline from his/her education and/or training and a basic understanding of the University and its business environment.
- **Level of Work:** Level 1 work is generally routine in nature, with assignments provided at a task level, typically on a daily or short-term basis.
- **Supervision:** Level 1 incumbents work under immediate supervision, have minimal latitude for unreviewed actions/decisions. Level 1 incumbents have no supervisory responsibilities.
- **Interactions:** Level 1 incumbents typically have limited interactions with those outside his/her own team.
- **Focus:** Level 1 incumbents focus primarily on his/her own work quality and accuracy.

Job Requirements And Qualifications: Indicate the minimum and preferred education and experience for this job and any licenses and certifications required.

Minimum Education:	Bachelor's degree or equivalent experience in Computer Science, MIS, Computer Engineering or related discipline.	Preferred Education:	Bachelor's degree in Computer Science, MIS, Computer Engineering or related discipline.
Minimum Experience:	<1 year	Preferred Experience:	1-3 years

Required Licenses/Certifications: