

# University of Virginia

## Job Summary

<b>Job Code:</b>	<b>Job Title:</b>	Computer Engineer III
<b>UVA Survey Code:</b>	<b>UVA Survey Code Title:</b>	
<b>Pay Band:</b>	<b>Career Path:</b>	Systems & Network Administration
<b>FLSA Status:</b>	<b>Management or Individual Contributor:</b>	Individual Contributor

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

Administer all aspects of a distributed computer system supporting a specified functional area of university operations. Plan and coordinate system utilization, system upgrades, system security, and perform growth analysis and capacity planning. Develop scripts to automate and manage system processes and performance. Provide solutions to solve system administration and client/server or application performance problems. Perform application installation, maintenance, training, and user support, as required; plan and coordinate projects to meet future needs.

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

1. Administer and support university systems to include secure access, data safety and integrity, disaster recovery, and physical security.
2. Maintain networked servers, workstations, peripherals and terminals, ensuring proper integration of these components with existing university computer systems. Plan and implement system security policy, to include firewalls, host and client access, file permissions, and user accounts. Troubleshoot networks, systems, and applications to identify and correct malfunctions and other operational problems. Regulate and monitor file and system access to ensure confidentiality and proper use. Maintain file services and backup/recovery processes and procedures.
3. Design and develop methods and procedures for collecting, organizing, interpreting, and classifying system and log data for security, performance and capacity planning needs. This should include application logs such as web and database services hosted by the system.
4. Design and program specific system scripts in response to department/client needs; install and debug new and/or upgraded software on server and client platforms, ensuring compliance with current site licenses; document all administered systems; manage websites and associated pages.
5. Research, evaluate, install, configure, and troubleshoot all hardware, peripherals, and equipment necessary to meet integrated systems objectives. Develop specialized skills within specific components of system administration.
6. Develop and implement various training and instruction programs for users on the use of operating systems, networking, applications, and databases.

**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 an in-depth understanding of his/her discipline including all required certifications as well as an in-depth understanding of the business environment of a large university system. Incumbent must demonstrate an understanding of the University system, its policies, and its operating procedures. Incumbent is expected to maintain currency of knowledge with respect to relevant state-of-the-art technology, equipment, and/or systems.

Incumbent should have thorough knowledge of data security and disaster recovery systems and procedures; system administration, applications, network protocols and services; a broad range of relevant client operating systems, applications, and equipment; understanding of LAN administration in a secure environment; systems growth analysis and capacity planning processes and techniques; data management techniques; a system scripting language and how to develop system utilities; computer site licensure regulations and requirements; and customer service standards and procedures. Incumbents at this level should exhibit the ability to assist in the development and administration of a specialized area of server infrastructure such as storage solutions, cluster technologies, security solutions or backup and recovery systems. Incumbents must have ability to identify problems and coordinate hardware and/or software recovery, installations and upgrades; implement and troubleshoot system performance, changes and modifications; write complex technical instructions in the use of the supported systems and applications; communicate with and interpret the operational requirements of end-users; investigate and analyze information and draw conclusions; and process computer data and format and generate reports.

**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.

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Incumbent will address complex problems and will use experience and judgment in selecting among authorized procedures. Incumbent seeks assistance when significant deviations are proposed, or when unprecedented problems arise. Incumbent assists senior staff in developing approaches to problem-solving and anticipating issues.

**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 felt within the team/department for which the incumbent works and may be felt within multiple, coordinating departments. Work quality, decision-making and long-term project management can affect the productivity of students, faculty and/or staff. Impact of errors can be substantial and/or university-wide.

**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 with fellow team members and coordinating team members, but the incumbent will also have interactions with assigned student, faculty, or staff clients. Incumbent works with external vendors or service providers. Incumbent should possess good verbal and written communication skills to convey technical guidance and information to users and to provide excellent customer service. Incumbent will train and provide guidance to more junior staff members.

### Distinguishing Characteristics

This is the career-level for the discipline. All incumbents who have demonstrated proficiency and satisfactory performance in the discipline are expected to reach this level eventually. Incumbent possesses all requirements and skills for Level 2 and has achieved proficiency in the typical tasks assigned to Level 2.

- **Skills:** Distinguished from Level 2 skills in that the Level 3 incumbent has fully developed his/her technical skills and has begun to acquire advanced skills.
- **Level of Work:** Distinguished from Level 2 work by activities that are more complex and the latitude to apply skills to solve most problems without review. Assignments at Level 3 are longer-term and the incumbent has latitude to devise the approach and method to performing the assignment.
- **Supervision:** Distinguished from Level 2 by the types and duration of assignments. Level 3 incumbents are no longer expected to perform routine activities and the incumbent will regularly perform long-term or non-routine assignments with minimal supervisory intervention. Also distinguished from Level 2 in that the incumbent serves as a resource to Level 1 and 2 incumbents on non-routine problems. Level 3 incumbents will often train Level 1 and 2 incumbents on work processes and policies.
- **Interactions:** Distinguished from Level 2 in that the Level 3 incumbent regularly works beyond his/her own team and at times, externally. The Level 3 incumbent works with related teams, client groups, management and vendors.
- **Focus:** Distinguished from Level 2 in that the Level 3 incumbent regularly works toward specific team goals and assists clients in achieving their team's goals.

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

<b>Minimum Education:</b>	Bachelor's degree or equivalent experience in Computer Science, MIS, Computer Engineering or related disciplines.	<b>Preferred Education:</b>	Bachelor's degree in Computer Science, MIS, Computer Engineering or related discipline.
<b>Minimum Experience:</b>	3-5 years	<b>Preferred Experience:</b>	5-7 years

**Required Licenses/Certifications:**