Job Summary

Ensure 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:

1. Work with functional counterparts to design and develop configurations, complex workflows, and system integration procedures. Document deployed systems and their integration points. Create test plans and perform regression testing and white box testing as modules are integrated into the end systems.

2. Formulate and define specifications for operating software programming applications or modify/maintain existing applications using engineering releases and utilities from the manufacturer.

3. Participate in the initial configuration and ongoing enhancements to the operating system's application architecture; assist with application upgrades; application tuning; support for data conversion processes; development of interfaces; assistance with performance and load testing; and support of 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. Manage 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:

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 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:

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.
University of Virginia
Job Summary

**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.

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<tr>
<th>Minimum Education:</th>
<th>Bachelor’s degree or equivalent experience in Computer Science, MIS, Computer Engineering or related discipline.</th>
<th>Preferred Education:</th>
<th>Master’s degree in Computer Science, MIS, Computer Engineering or related discipline.</th>
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<tbody>
<tr>
<td>Minimum Experience:</td>
<td>3-5 years</td>
<td>Preferred Experience:</td>
<td>5-7 years</td>
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Required Licenses/Certifications: