
# Engineer Interview Questions:

 

# 1. Network Engineer

## Level 1: Smart Hands

1. Can you describe the basic tools and software you've used in your previous roles?
2. How do you approach troubleshooting a system issue when you don't have prior knowledge?
3. What's the importance of following Standard Operating Procedures (SOPs)?
4. Can you walk me through how you would safely replace a hardware component in a system?
5. Have you worked with any ticketing systems like Jira or ServiceNow? How did you use them?
6. What steps do you take to ensure proper documentation when handling a task?
7. Have you ever worked with a team to solve an issue? What was your role?
8. How do you escalate an issue you cannot resolve yourself?
9. What is your experience with maintaining inventory or tracking tools?
10. How do you ensure your work aligns with company policies and standards?

 

## Level 2: Independent Contributor

1. How do you determine the root cause of a recurring issue in a system?
2. Explain a time when you successfully implemented a solution to improve system performance.
3. Can you describe the importance of documentation in an engineering role and how you ensure it’s accurate?
4. What steps do you take to prioritize tasks when working on multiple projects simultaneously?
5. How do you handle escalations that require additional expertise?
6. Have you ever trained or guided a junior team member? How did you approach it?
7. How do you ensure system downtime is minimized during maintenance?
8. Can you describe a project where you independently managed most of the tasks?
9. What tools do you use to monitor system performance and health?
10. How do you stay current on updates and advancements in your field?

 

## Level 3: Expert

1. Tell me about the most complex engineering problem you've solved. How did you approach it?
2. How do you evaluate the risks of implementing a new system or technology?
3. Can you walk me through your approach to mentoring junior engineers or team members?
4. What strategies do you use to ensure systems remain scalable and secure over time?
5. How do you stay updated with the latest technologies and industry best practices?
6. Describe a time when you had to convince leadership to adopt a technical solution. How did you handle it?
7. How do you approach system integration in complex environments?
8. What is your methodology for disaster recovery planning and testing?
9. How do you ensure compliance with industry regulations in your engineering work?
10. What are your top strategies for optimizing system performance?

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## 2. Cloud Engineer

### Level 1: Smart Hands

1. What is cloud computing in your own words?
2. Can you name some cloud service providers you're familiar with?
3. How would you explain the difference between IaaS, PaaS, and SaaS?
4. Have you ever configured or deployed a virtual machine? What was the process?
5. How do you troubleshoot connectivity issues in a cloud environment?
6. What is your experience with cloud storage solutions?
7. Have you ever used cloud management tools? If so, which ones?
8. How do you ensure proper permissions are set for cloud resources?
9. What is a virtual private cloud (VPC), and why is it important?
10. Can you explain how data backup works in a cloud environment?

## Level 2: Independent Contributor

1. What's the difference between public, private, and hybrid clouds?
2. Can you explain how you would set up a secure storage bucket in a cloud platform?
3. How do you monitor and manage cloud resources effectively?
4. What's your approach to cost optimization in cloud environments?
5. Describe your experience with automating cloud deployments (e.g., using Terraform or CloudFormation).
6. How do you handle multi-cloud environments and ensure compatibility?
7. Can you explain how load balancing works in a cloud environment?
8. What strategies do you use to secure cloud-based applications?
9. How do you manage access control in a cloud environment?
10. Have you ever migrated applications to the cloud? How did you approach it?

## Level 3: Expert

1. How do you design a multi-region architecture for high availability?
2. Can you walk me through a cloud migration project you've led?
3. What security measures do you implement to ensure compliance in cloud systems?
4. How do you optimize workloads for performance in a cloud environment?
5. What trends or emerging technologies in cloud computing excite you, and why?
6. How do you manage disaster recovery in a cloud environment?
7. What tools or methods do you use for monitoring large-scale cloud environments?
8. Describe your experience with container orchestration tools like Kubernetes in the cloud.
9. How do you handle scaling for dynamic workloads in the cloud?
10. What's your approach to managing hybrid cloud environments?

## 3. Security Engineer

### Level 1: Smart Hands

1. What is the importance of using strong passwords and multi-factor authentication?
2. Can you explain what a firewall is and how it protects a network?
3. What are some examples of phishing attempts you've encountered or learned about?
4. Have you worked with antivirus or endpoint security tools? If so, which ones?
5. What is the purpose of encryption, and can you give an example of its use?
6. How would you respond if a coworker accidentally clicked on a suspicious email link?
7. Can you describe what a secure password policy should include?
8. What do you know about access controls and their importance in cybersecurity?
9. How do you recognize and report a potential security breach?
10. Have you worked with security awareness training programs? What was your role?

## Level 2: Independent Contributor

1. Can you explain the difference between IDS (Intrusion Detection System) and IPS (Intrusion Prevention System)?
2. How do you ensure compliance with security frameworks like GDPR, HIPAA, or PCI DSS?
3. Describe a time when you identified and resolved a critical security vulnerability.
4. What tools or processes do you use to perform vulnerability assessments?
5. Can you explain the principles of least privilege and how you've applied them?
6. How do you secure data in transit and at rest?
7. What's your experience with incident response and creating playbooks?
8. Have you worked with SIEM (Security Information and Event Management) tools? Which ones?
9. How do you secure a hybrid environment with both on-premise and cloud infrastructure?
10. What's your approach to managing third-party security risks?

## Level 3: Expert

1. How do you design a robust security architecture for a multi-location enterprise?
2. What's your process for managing zero-day vulnerabilities?
3. Describe your experience with penetration testing and the tools you use.
4. How do you balance business needs with security requirements?
5. What is your strategy for handling insider threats?
6. How do you evaluate the effectiveness of security awareness programs?
7. Can you explain how you integrate DevSecOps practices into CI/CD pipelines?
8. What's your methodology for advanced threat detection and mitigation?
9. Describe a time when you successfully mitigated a large-scale attack or breach.
10. How do you forecast and budget for future security needs in a growing organization?

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## 4. DevOps Engineer

### Level 1: Smart Hands

1. What does DevOps mean to you, and why is it important?
2. Have you worked with version control systems like Git? What tasks did you perform?
3. Can you explain what continuous integration (CI) is?
4. What tools have you used to monitor server or application health?
5. Have you worked with any scripting languages like Bash, Python, or PowerShell?
6. What is containerization, and have you used tools like Docker?
7. Can you describe your role in deploying an application?
8. What's the purpose of infrastructure as code, and have you used it?
9. How do you troubleshoot a failed deployment?
10. What is your understanding of cloud platforms and their role in DevOps?

## Level 2: Independent Contributor

1. How do you implement a CI/CD pipeline, and what tools have you used?
2. Can you explain how you monitor and maintain the performance of a microservices architecture?
3. Describe a time when you automated a repetitive task. What tools or scripts did you use?
4. How do you handle secrets and sensitive information in pipelines?
5. Have you worked with orchestration tools like Kubernetes? What's your experience?
6. What is your approach to managing infrastructure in a multi-cloud environment?
7. How do you handle rollback during a failed deployment?
8. Can you explain blue-green deployment and its benefits?
9. What's your experience with log aggregation and analysis tools?
10. How do you ensure security and compliance in DevOps workflows?

## Level 3: Expert

1. How do you design a fully automated deployment pipeline for a large-scale application?
2. What's your approach to implementing DevSecOps in CI/CD pipelines?
3. Describe a time when you improved system performance through automation.
4. How do you approach scaling infrastructure to meet sudden spikes in traffic?
5. What's your process for managing a multi-region Kubernetes deployment?
6. Can you explain canary deployments and when you'd use them?
7. How do you optimize costs in cloud environments through automation?
8. What's your strategy for disaster recovery in a highly automated infrastructure?
9. How do you create and manage documentation for complex DevOps workflows?
10. What trends or emerging tools in the DevOps space excite you, and why?