

The Cybersecurity Analyst Role:

Responsibilities and Skills



- Detect, investigate, and respond to security threats daily



- Essential defender of enterprise data and systems in 2026



- For aspiring analysts, career switchers, and junior SOC staff



- Gain role clarity, core skills, tools, and career pathways



Role Overview and Core Mission



- Detect, investigate, report, and continuously improve security posture



- Analysts monitor; engineers build; responders contain; auditors verify



- Job titles: SOC analyst, security analyst, cyber defense analyst



Where Analysts Work

- **SOCs:** shift-based, tiered monitoring in enterprise or MSSP settings
- **In-house teams:** vulnerability management, compliance, and risk focus
- **MSSPs and consulting:** multi-client monitoring, detection, and reporting
- **MSSPs:** multi-client monitoring, detection, and reporting



Core Responsibilities

- Monitor SIEM dashboards, alerts, logs, and network traffic
- Triage and investigate: separate real threats from false positives
- Document findings and escalate confirmed incidents
- Support reporting to stakeholders with clear evidence



```
> monitoring alerts...  
> new event detected  
> analyzing...  
> _
```



```
> reviewing logs...  
> correlating events...  
> assessing findings...  
> _
```



```
> documenting findings...  
> creating ticket...  
> adding evidence...  
> _
```



```
> escalating incident...  
> notifying team...  
> awaiting response...  
> _
```

A Day in the Life of a SOC Analyst



- Shift handoff starts the shift with context



- Review SIEM dashboards and threat intel updates



- Alert triage is the primary task



- Deep investigations happen for complex threats

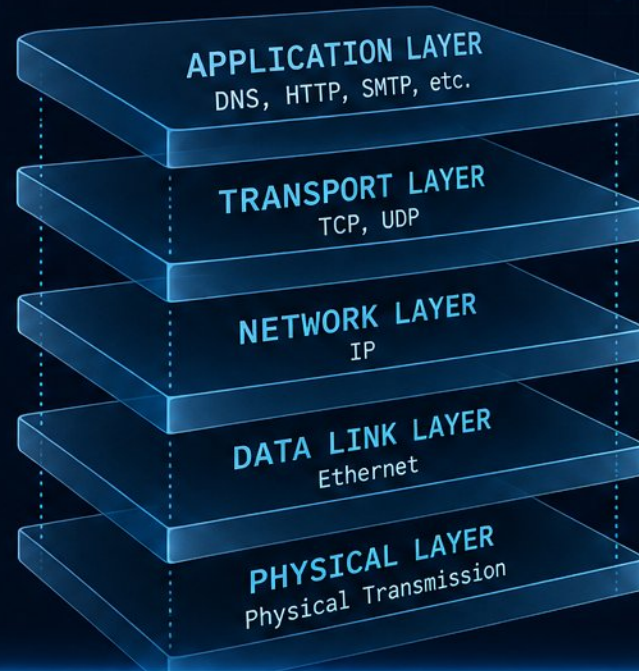


- Document actions and tune detection rules



Key Technical Skills

- Networking essentials: TCP/IP, OSI, DNS, common ports
- Windows event logs and Active Directory basics
- Linux command line for investigation
- Log analysis, SIEM querying, and triage
- Scripting fundamentals: Python, Bash, or PowerShell



COMMON PORTS	
DNS	- 53
HTTP	- 80
HTTPS	- 443
SSH	- 22
RDP	- 3389

TERMINAL

```
user@investigator:~$ whoami
investigator
user@investigator:~$ uname -a
Linux investigator 5.x.x
user@investigator:~$ ls /var/log
auth.log  syslog  kern.log  secure
user@investigator:~$ _
```

Threat and Attack Fundamentals

- ▶ Common threat actors: cybercriminals, insiders, state-sponsored groups
- ▶ Everyday attacks: phishing, social engineering, malware, ransomware
- ▶ Attack stages mapped via MITRE ATT&CK tactics and techniques



Analytical and Behavioral Skills

- ▶ - Test hypotheses to investigate alerts effectively
- ▶ - Spot patterns and document every action taken
- ▶ - Stay curious and keep learning continuously
- ▶ - Remain calm and decisive when incidents escalate



Common Tools and Technologies

- SIEM platforms: Splunk, Sentinel, QRadar, Elastic SIEM
- EDR tools: CrowdStrike, SentinelOne, Defender for Endpoint
- SOAR automation streamlines incident response workflows
- Threat intel feeds enrich alerts with context
- Wireshark and basics for packet-level analysis

SIEM



EDR



PACKET CAPTURE



Communication and Reporting



- Clear incident notes, tickets, and shift handoffs



- Escalate with precise detail to senior analysts or managers



- Translate technical findings for non-technical stakeholders

INCIDENT TICKET

INCIDENT OVERVIEW

TECHNICAL DETAILS

```
• _____  
• _____  
• _____  
• _____  
• _____  
• _____  
• _____  
• _____  
• _____  
• _____
```

RECOMMENDATIONS / NEXT STEPS

COMMUNICATION LOG / HANDOFF NOTES



TECHNICAL SUMMARY

In-depth analysis, evidence, and technical context for analysts.

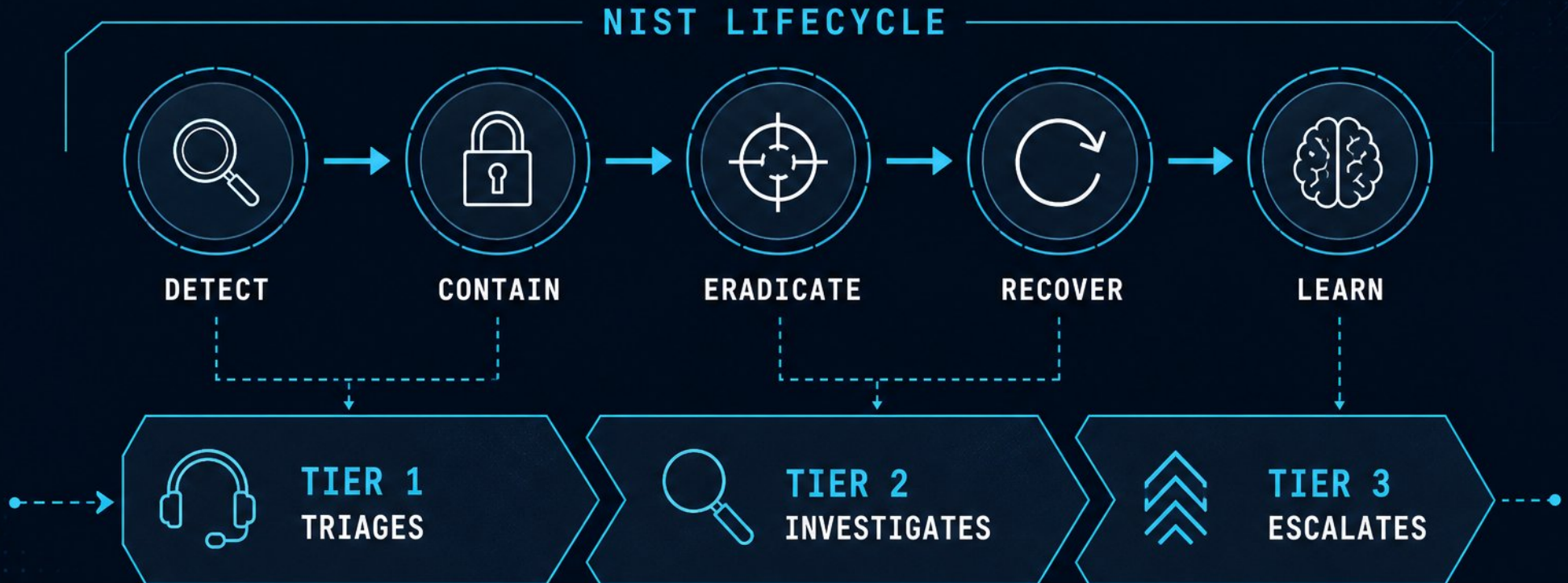


EXECUTIVE SUMMARY

Clear, concise takeaways and impact for non-technical stakeholders.

Incident Response and Investigation Workflow

- Use the NIST lifecycle: detect, contain, eradicate, recover, learn
- Follow playbooks from alert to triage, investigation, and containment
- Tiers divide work: Tier 1 triages, Tier 2 investigates, Tier 3 escalates



Career Paths



- **Entry:** SOC Tier 1, junior security analyst, vulnerability management



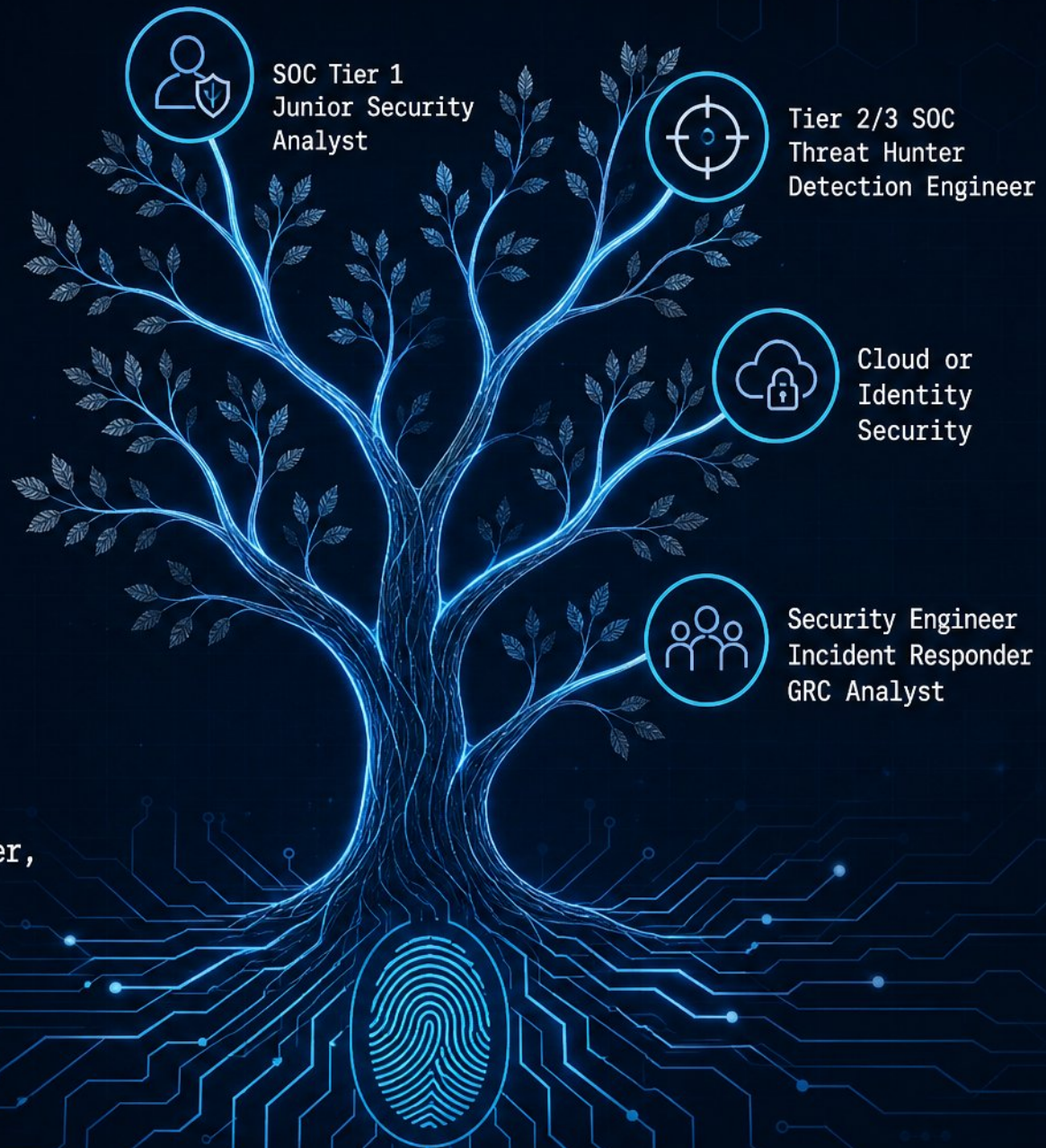
- **Growth:** Tier 2/3 SOC, threat hunter, detection engineer



- **Specialize:** cloud or identity security



- **Adjacent:** security engineer, incident responder, GRC analyst



Certifications and Learning Pathways

- – Start with CompTIA Security+ or ISC2 CC to pass hiring filters
- – Advance to CySA+, SC-200, or BTL1 for analyst skills
- – Practice with TryHackMe, Hack The Box, and free SIEM training



Practical Next Steps



- Build a home lab for hands-on log analysis and SIEM practice



- Document labs and CTF challenges to create a hiring portfolio



- Apply to Tier 1 SOC and junior analyst roles while upskilling

```
> tail -f /var/log/auth.log
> grep "Failed password"
> cat /var/log/syslog | less
> sudo journalctl -xe
> tcpdump -i any
> zeek -r capture.pcapng
> grep "ERROR" /var/log/*
> _
```



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