NAROTTHAM KARNATI

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SUMMARY

Cloud and Application Security Engineer with hands-on experience securing AWS environments and production web applications. Skilled in enforcing IAM least-privilege, securing CI/CD pipelines, and remediating OWASP Top 10 vulnerabilities in collaboration with development teams. Focused on reducing security risk through automation and secure-by-design cloud practices

SKILLS

- **Cloud Security:** AWS IAM (Least Privilege), S3 Security, VPC, CloudTrail, Amazon GuardDuty, AWS CLI, Infrastructure as Code (Terraform)
- **App Security:** OWASP Top 10, Web Application Security Testing, Burp Suite, SAST/DAST, Secure SDLC
- **DevSecOps**: CI/CD Security (GitHub Actions), Docker Security, Kubernetes (Security Fundamentals), Git
- **Scripting & SIEM:** Python (Boto3 Automation), Bash Scripting, Linux Hardening (CIS Benchmarks), JSON, YAML

WORK EXPERIENCE

XsignON (Client: Citi Bank) | Cloud & Application Security Engineer   Texas*, USA* | Dec 2024 - Present
- Integrated security controls into GitHub Actions CI/CD pipelines used across multiple application repositories to prevent insecure code and cloud misconfigurations
- Assessed AWS environments using security tooling and Terraform (IaC) to identify and remediate CIS Benchmark gaps
- Designed and enforced IAM least-privilege access models for production cloud resources supporting regulated workloads
- Hardened Linux and Windows systems following CIS Benchmarks to reduce attack surfaces across enterprise workloads
- Collaborated with application teams to remediate OWASP Top 10 vulnerabilities identified through security testing

Independent Security Analyst   Remote| Apr 2023 – Nov 2024
- Executed vulnerability assessments using Nessus and Nmap to identify and prioritize high-risk security exposures
- Hardened Linux and Windows systems using CIS Benchmarks to reduce system attack surfaces
- Implemented network security controls with UFW and iptables to isolate and protect critical assets

Teaching Assistant | Cybersecurity Lab   VIT Vellore| June 2022 – Mar 2023
- Managed and supported virtualized cybersecurity labs (Linux, VMware) for large student cohorts, resolving configuration and access issues
- Guided students on core security concepts including packet analysis (Wireshark) and access controls.

PROJECTS

SOC Automation & Threat Detection | Splunk, Zeek, Suricata, Python
- Built a SOC-style detection pipeline by ingesting Zeek and Suricata logs into Splunk to identify malicious network activity
- Developed detection rules aligned with MITRE ATT&CK to flag brute-force and lateral movement behaviors
- Automated alert enrichment using Python scripts to reduce manual triage effort and improve detection accuracy by 40%.

Cloud Security Hardening & Monitoring | AWS IAM, Guard Duty, Terraform
- Secured AWS environments by implementing IAM least-privilege policies and remediating cloud misconfigurations
- Enabled threat monitoring using GuardDuty and CloudTrail to detect unauthorized access and risky API activity
- Audited cloud infrastructure against CIS Benchmarks and applied fixes using Terraform to enforce secure configurations

EDUCATION

University of Central Missouri   *Lee's Summit, MO* | Aug 2023 - Dec 2024
- *Master of Science Computer Science (Cyber Security Focus)*

Vellore Institute of Technology   *Vellore, India* | July 2019 – Mar 2023
- *Bachelor of Technology in Information Technology*

CERTIFICATES

- CompTIA Security+ – CompTIA
- AWS Certified Cloud Practitioner – Amazon Web Services (AWS)
- Google Cybersecurity Professional Certificate – Google