Mihir Katre

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PROFESSIONAL SUMMARY

Security Engineer with **4+ years** of experience across cloud security, application security, and DevSecOps. Proven expertise in risk assessments, secure architecture design, and automation to strengthen enterprise defenses. Track record of driving security control adoption, reducing vulnerabilities by up to 95%, and ensuring regulatory compliance (NIST, CIS, Zero Trust). Skilled in collaborating with developers, infrastructure teams, and global stakeholders to deliver scalable, secure solutions.

SKILLS

Application Security: OWASP Top 10, Burp Suite, Metasploit, Kali Linux, Nessus, Nmap, Wireshark, MITRE ATT&CK.
Cloud Security: AWS (IAM, WAF, KMS, Security Hub), Azure (Sentinel, RBAC, Firewalls, NSG, VPN, ASG, Key Vault).
Risk & Compliance: Security Control Implementation, Risk Assessments, Zero Trust, Regulatory Standards (NIST, CIS).
DevSecOps & Automation: GitHub Actions, CI/CD pipelines, SonarQube, Terraform, Ansible, IaC, CloudFormation, Azure DevOps, Docker, Octopus Deploy, PowerShell, Bash scripting, Jira.
Programming & Frameworks: C#, .NET (Core & 8), JavaScript, Blazor, Angular, Vue, REST APIs, PowerShell, Bash.

WORK EXPERIENCE

Tyler Technologies   *New York, United States*
Software Development Intern   *May 2024 – Present*
- Built secure web applications with mitigations for **OWASP Top 10 risks** (XSS, SQLi), embedding validations early in SDLC.
- Performed **security assessments** of .NET 8 APIs and web applications, eliminating SSRF vulnerabilities and **cutting unauthorized access by 70%.**
- Partnered with architects to integrate **security checkpoints** in design, enhancing detection at early phases.

National Security Agency (UAlbany Coursework)   *New York, United States*
Cyber Security Project Intern   *Aug 2023 – Dec 2023*
- Designed a **ReactJS + C# monitoring dashboard** that boosted multi-cloud security visibility by **40%.**
- Automated ingestion of **10K+ log events/day** from Azure Monitor and AWS CloudWatch enhancing threat detection.
- Conducted risk analysis and recommended **multi-cloud security controls** in collaboration with NSA Mentors.

Deloitte   **Mumbai, India**
Consultant, Cloud Security & Engineering   *Sept 2022 – July 2023*
- Led security assessments for **25+ client-initiated projects**, embedding application & infrastructure controls into multi-cloud environments.
- Architected **least-privilege IAM frameworks** across **7,000+ cloud resources**, enforcing Zero Trust principles.
- **Achieved 93% compliance** with regulatory standards **(NIST, CIS)** through security architecture design.
- Communicated risks to developers and engineers while implementing process efficiencies to reduce attack surfaces.

Foraysoft   **Mumbai, India**
DevSecOps Engineer   *Jun 2022 – Sept 2022*
- Authored and maintained Python, PowerShell, and Bash automation scripts, **eliminating manual workload by 71%**
- Integrated **SAST (SonarQube) & monitoring tools (Datadog)** into CI/CD pipelines, **minimizing pre-deployment defects by 35%.**
- Coordinated with compliance and DevOps teams to **embed risk-based security checkpoints** across releases.

LTIMindtree   **Mumbai, India**
Cloud Security Engineer   *June 2020 – March 2022*
- Conducted threat modeling and risk assessments, **preventing 95% of critical vulnerabilities pre-deployment.**
- Deployed Azure Firewall & AWS Network Firewall, **improving incident response times by 30%.**
- Established central monitoring via GuardDuty and Azure Security Center, **enabling faster incident triage.**
- Monitored KRIs and emerging threats, **proactively mitigating non-compliance by 75%** across Azure & AWS.

PROJECT EXPERIENCE

Development of a Multi Cloud Monitoring Tool (NSA Collaboration)   *New York | August 2023 – January 2024*
- Built a **real-time monitoring platform** for AWS, Azure, and GCP, improving anomaly detection across environments.
- **Increased actionable detections by 30%** through log correlation and analysis of CloudTrail, VPC Flow Logs, and GuardDuty.
- Developed alert correlation logic in C# + SQL **to improve accuracy and detection effectiveness.**
- Ensured alignment with **NIST & CIS** benchmarks while collaborating with GRC and infrastructure teams.

Offensive Security Simulation & Pen Testing   *New York | August 2024 – May 2025*

- Exploited **OWASP Top 10 & privilege escalation** flaws, remediating enterprise exposure by **50% post-remediation**.
- **Conducted red, blue, and purple team exercises**, validating resilience of defenses and response playbooks.
- Tested **Active Directory lateral movement** and **credential dumping**, surfacing critical identity gaps.
- Delivered **executive-level remediation reports**, reducing repeat vulnerabilities in subsequent audits.

CTF & COMMUNITY ENGAGEMENT

- Ranked in **top 15% nationally** in CTFs (Cyber Seed, Cyber Defense Organization, picoCTF), excelling in exploitation and privilege escalation.
- Completed 100+ labs on DVWA, TryHackMe, and HackTheBox, mastering real-world **vulnerabilities (SQLi, XSS, CSRF, SSRF, IDOR, deserialization).**
- **Simulated adversary tactics and techniques (TTPs)** aligned with **MITRE ATT&CK** framework to strengthen blue team defensive strategies.
- **Developed custom exploit scripts and automation tools** in Python, Bash, and PowerShell to streamline vulnerability validation and proof-of-concept development.

EDUCATION

University at Albany, State University of New York.   **Albany, NY - May 2025**
M.S. Digital Forensics and Cybersecurity   **GPA 3.97**
Coursework: Cloud Security, Network Security, Web Application Security, Penetration Testing, Threat Hunting, Vulnerability Exploitation, Cyber Law and Ethics, Reverse Engineering Malware.

CERTIFICATIONS

- **Amazon Web Services Technical Professional**
- **AWS Certified Cloud Practitioner**
- **Microsoft Certified: Azure Fundamentals - AZ 900**
- **Microsoft Certified: Azure Administrator Associate - AZ 104**
- **CompTIA Security+: In Progress**
- **Java Level 1 & 2 – CCA**
- **Red Hat Certified Ansible Automation Specialist – Linux Academy**