BHARAT GURBAXANI

bharatg@umd.edu | (240) 481-3472 | Linkedin | Website

EDUCATION

Master of Engineering, Cybersecurity — Expected May 2025
University of Maryland — *GPA – 4.0*
Key Coursework: *Cloud Security, Cloud Computing, Penetration Testing, Linux System Administration, Digital Forensics and Incidence Responses*

Bachelor of Technology, Information Technology — May 2019
SRM University — GPA – 83%

TECHNICAL SKILLS

Cloud: AWS EC2, AWS Lambda, AWS S3, AWS RDS, AWS IAM, AWS Route 53, AWS Cloudfront, AWS WAF
Language & Tools: Wireshark, Linux, Python, C, Windows, Microsoft Office Suite, Nmap, Autospy
Virtualization: VMware Workstation, Oracle VirtualBox
Penetesting Tools*:* Nessus, Ghidra, Metasploit, OWASP ZAP, John the Ripper, Sqlmap

WORK EXPERIENCE

Graduate Teaching Assistant – Penetration Testing [ENPM634]
University of Maryland, College Park — Aug 2024 – Present

- **Designed a lecture** on **pentesting AWS** environments using **CloudGoat and Pacu** and led in-class exercise.
- Provided guidance to **140 students**, fostering critical thinking and problem-solving while **contributing to course content development**.

Security Consultant-I (Team Lead)
Highradius Technologies, Hyderabad India — Jan 2019 – Feb 2022

- Received the HighFlyer (Rewards and Recognition) award for Q3, 2021 for managing a team of 8 consultants, designing enterprise solutions, defining MVPs, and reducing the team's knowledge gap by 18% through the implementation of a comprehensive "PlayBook" guide.
- Managed the infrastructure vulnerability scanning program by leveraging Rapid7 Nexpose and Qualys scanners, automating the integration of proprietary network inventory sources with the Rapid7 Nexpose scanner and performing quality control checks on the scanning infrastructure.
- Conducted White-box/Black-box/Grey-box application assessments using manual techniques and automated reviews with dynamic application scanning (DAST) tools (like Burp suite), identifying root causes and recommending remediation. Additionally, performed static source code reviews using HP Fortify and IBM App Scan.
- Identified web application security weaknesses using OWASP Top 10 as a baseline, including identifying insecure development practices or application design. Leveraged industry tools like Acunetix and Burpsuite, open-source tools, and manual testing to identify various security issues and provide appropriate recommendations.

PROJECTS

Infrastructure Migration on AWS and Security Enhancement

- Succeeded in leading the migration of an **on-premises infrastructure to AWS cloud**, ensuring improved scalability, availability, and reliability.
- Implemented various AWS services and tools to enhance the security posture of the infrastructure, including **AWS Patch Manager, AWS Backup, AWS IAM, AWS Shield, Web ACLs through WAF, and CloudFront, AWS RDS** for secure storage of PII and credit card information.
- Configured **application load balancer and auto scaler** to ensure efficient resource utilization and high availability of critical resources.

Scalable and Secure E-commerce Platform on AWS

- Architected resilient cloud infrastructure with **Auto Scaling**, **Elastic Load Balancer**, and multi-AZ VPC for high availability.
- Implemented layered security using **AWS WAF**, **Shield Advanced** for DDoS protection, and **SSL/TLS encryption** via ACM.
- Enhanced global content delivery with **CloudFront edge caching** and **Route 53** geolocation routing to minimize latency.
- Set up proactive monitoring with **CloudWatch** and auditing via **CloudTrail** for performance insights and compliance.
- Conducted **Jmeter stress tests**; optimized costs using **AWS Trusted Advisor** and **Cost Explorer**.

2-Tier LAMP Stack Deployment with Security Enhancements

- Deployed a **2-tier LAMP architecture** using VMs for web and database services, configured **HAProxy** for load balancing **to ensure high availability**.
- Implemented **iptables** and **fail2ban** for enhanced security, including **rate-limiting SSH connections** to prevent brute-force attacks and automatically blocking IPs after repeated failed login attempts.
- Enforced **password policies** using **PAM (Pluggable Authentication Modules)** for password expiration and complexity requirements, ensuring system-wide compliance with security standards.
- **Configured ACLs** to restrict webadmin access to only the /var/www/html directory, blocking modifications to WordPress and phpMyAdmin.

Pentesting on a Vulnerable Virtual Server [CTF]

- Succeeded in capturing all the flags (6 flags) hidden on the server.
- Demonstrated the use of **Weevely** to obtain shell access, **Zphisher** to phish the CEO of the company, **Sqlmap** to leak the database, **John the Ripper** to crack the password, Python script to decrypt the base64 encoding.

CERTIFICATIONS

INE Junior Penetration Tester [eJPT] — Dec 2023