Ashok Reddy
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Objective

Innovative and results-driven cybersecurity professional with over 6 years of comprehensive experience in application security, penetration testing, and software development. Adept at managing risk, enhancing security postures, and Integrating security into DevOps workflows, including CI/CD and DevSecOps processes. Seeking a challenging Sr. Security Engineer position to leverage extensive expertise in vulnerability management, security compliance, and threat mitigation to fortify enterprise security infrastructures. Demonstrates a strong commitment to continuous learning and staying abreast of emerging security technologies and threats.

Education

University of Louisiana at Lafayette
Master of Science in Computer Science, GPA: 3.5/4.0
Relevant Coursework: Network Security, Application Security, Machine Learning, AI, Large Language Models
Lafayette, LA (January 2023 – May 2024)

Sri Mittapalli College of Engineering
Bachelor of Engineering in Electronics and Communication Engineering
JNTU-Kakinada, India (June 2013 – June 2017)

Professional Experience

Research Assistant
University of Louisiana at Lafayette
Lafayette, LA (February 2023 – May 2024)

- **Optimized Zigbee Communication**: Enhanced security in solar panel sensor data transmission by implementing advanced Zigbee communication protocols, significantly improving data integrity and network resilience.
- **NERC Compliance Analysis**: Conducted detailed security assessments based on NERC standards to safeguard critical infrastructure, ensuring compliance with industry best practices.
- **GNU Radio Development**: Developed modular blocks in GNU Radio for advanced radio signal analysis, facilitating the creation of flexible toolkits for security researchers to analyze and mitigate radio-based threats.

- **IoT Security Evaluations**: Executed comprehensive security assessments on ZigBee networks using GNU Radio and USRP B210, identifying and mitigating vulnerabilities through communication sniffing and threat modeling.
- **LoRa Network Configuration**: Successfully configured and secured LoRa networks for long-range communication, enhancing IoT device interoperability and security.
- **Firmware Analysis and Compliance**: Conducted thorough IoT firmware analysis to ensure device compliance with stringent security standards, reinforcing device integrity and preventing potential exploits.
- **OT Security Standards Compliance**: Ensured OT cyber assets adhered to NERC CIP standards, implementing robust security controls and continuous monitoring to meet regulatory requirements.
- **SIEM and Security Monitoring**: Leveraged SIEM tools for continuous security monitoring, effectively managing configuration baselines, logging, and incident analysis to preemptively identify and mitigate security threats.

Senior Cyber Security Analyst
Cyber Excellence Academy Pvt. Ltd
Hyderabad, IN (September 2019 – February 2023)

- **Comprehensive Security Assessments**: Conducted extensive application security assessments across diverse web applications, networks, web services APIs, and mobile applications, prioritizing vulnerabilities using OWASP Top 10.
- **Vulnerability Remediation Management**: Leveraged Nessus and Qualys to analyze vulnerabilities, developing and executing remediation strategies, thereby reducing the organization's exposure to cyber threats.
- **Kenna Security Reporting**: Created comprehensive security reports and scorecards using Kenna Security, leveraging CVSS v3.0 for accurate risk assessment.
- **Qualys and Nessus Policy Compliance Reports**: Generated detailed policy compliance reports using Qualys and Nessus tools, ensuring adherence to security standards and regulations.
- **Expertise in DevSecOps on AWS Cloud**: Demonstrated proficiency in developing and implementing a robust DevSecOps pipeline utilizing AWS CodeCommit for version control and AWS CodePipeline for CI/CD automation. Integrated IAM for fine-grained access control, Secrets Manager for secure data handling, and SonarCloud along with Snyk for static code analysis and dependency scanning. Utilized OWASP ZAP for dynamic security testing, ensuring comprehensive application security and robust threat mitigation in alignment with OWASP Top 10 vulnerabilities.
- **Splunk SIEM Integration**: Integrated Windows Event Log with Splunk SIEM tool to enhance log management and security information analysis.
- **Automation and Scripting**: Developed and automated vulnerability scanning and remediation processes using PowerShell, enhancing operational efficiency and reducing manual intervention time.
- **Expertise in Cloud Security and OWASP Top 10**: Demonstrated proficiency in cloud security practices encompassing secure architecture design, IAM, data encryption, and compliance frameworks. Thorough understanding of OWASP Top 10 vulnerabilities tailored for cloud environments, facilitating robust threat mitigation and secure application development strategies.

- **Security Training and Awareness**: Delivered in-depth security training sessions to internal teams, focusing on common vulnerabilities, secure coding practices, and code review methodologies, significantly raising team awareness and competency.
- **Business Unit Collaboration**: Worked closely with various business units to remediate identified vulnerabilities, managing projects effectively from initiation to completion, ensuring timely and effective risk mitigation.
- **Network Security Management**: Conducted thorough LAN/WAN network security assessments, implementing robust security measures and continuously monitoring network traffic for anomalies and potential threats.
- **Disaster Recovery Planning**: Played a key role in disaster recovery planning, preparation, and testing, ensuring that the organization's data and services remain resilient against potential cyber incidents.

Senior Software Developer
Maktron Global IT Solutions Pvt. Ltd
Hyderabad, IN (June 2017 – September 2019)

- **Web Application Development**: Developed and maintained complex web applications using SQL Server 2014, ASP.NET, and C#, ensuring high performance, scalability, and security.
- **CMS Development**: Expertly built and customized web applications using Content Management Systems (CMS) such as WordPress and Joomla, enhancing user experience and functionality.
- **Full SDLC Involvement**: Engaged in all phases of the Software Development Life Cycle (SDLC), from requirement gathering and design to development, testing, deployment, and maintenance, ensuring high-quality deliverables.
- **AWS RDBMS Database Creation**: Designed and implemented robust relational database management systems (RDBMS) using AWS, ensuring optimal performance, scalability, and security for application data.
- **Client-Focused Solutions**: Focused on delivering tailored web development solutions that met and exceeded client expectations, enhancing customer satisfaction and driving business growth.

Certifications

- **Certified Ethical Hacker (CEH)**, EC-Council - August 2020
- **Windows Kernel Exploitation**, Nullcon-GOA - September 2022
- **Penetration Testing Internship**, Virtual Testing Foundation - Oct-Dec 2021
- **Offensive Security Certified Professional (OSCP)** - InProgress

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Skills

- **Languages**: Python, Bash, SQL, C#, Perl, JavaScript, HTML, CSS, ASP.NET, PHP, Ruby, Lua
- **Operating Systems**: Windows, Ubuntu, Kali Linux, Linux
- **Databases**: Microsoft SQL, MySQL, Oracle, PostgreSQL

- **Security Frameworks**: OWASP Top 10, OWASP Testing Guide, CWE 25, SANS 25, NIST Framework
- **Vulnerability Management**: Vulnerability and Threat Analysis, Malware Analysis, Risk Management
- **Penetration Testing**: Metasploit, Nmap, Wireshark, Dirbuster, enum4linux, smbclient
- **Static and Dynamic Security Testing**: Burp Suite, OWASP ZAP, CheckMarx, WebInspect, Nessus, Qualys, Postman, MobSF, ADB shell
- **Scripting and SOC**: Python, Unix scripting, PowerShell, Splunk
- **Protocols**: FTP, SSH, HTTP, HTTPS, TCP/IP, UDP, DHCP, DNS, SMB, LDAP
- **Productivity Tools**: Microsoft Office 365, MS PowerBI

Achievements

- **Medal of Excellence** for developing the Digital Learning Platform - Cyber Excellence Academy

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Professional Summary

Innovative cybersecurity professional with over 6 years of extensive experience in application security, penetration testing, and software development. Highly skilled in managing incident response, integrating security into DevOps workflows, and securing Android and iOS applications. Proven track record in leading teams, managing risks, and delivering on commitments within an Agile Software Development Lifecycle. Possesses in-depth knowledge of OWASP Top 10 and regulatory frameworks such as PCI DSS, ISO 27001, and NIST standards. Proficient in scripting and automation using Python and PowerShell, with a strong customer-oriented attitude, a creative, adaptive work ethic, and a commitment to continuous learning and excellence in cybersecurity.

Project Highlights

IoT Security Enhancement Project
University of Louisiana at Lafayette

- **Project Overview**: Enhanced security protocols for IoT devices, focusing on Zigbee and LoRa technologies.
- **Achievements**: Developed and optimized Zigbee communication protocols conducted vulnerability assessments on LoRa networks, and ensured compliance with NERC standards.

Vulnerability Management Automation
Cyber Excellence Academy Pvt. Ltd

- **Project Overview**: Automated vulnerability scanning and remediation processes using PowerShell and Nessus.
- **Achievements**: Streamlined vulnerability management workflows, significantly reducing manual intervention time and improving threat detection and remediation efficiency.

Web Application Security Overhaul
Maktron Global IT Solutions Pvt. Ltd

- **Project Overview**: Led the development and security enhancement of multiple web applications.
- **Achievements**: Successfully implemented secure coding practices, performed thorough security assessments, and enhanced application resilience against OWASP Top 10 vulnerabilities.

Professional Development

- **Continuous Learning**: Actively pursuing advanced courses in cloud security, IoT/OT security, and emerging cybersecurity technologies.
- **Certifications**: Preparing for Offensive Security Certified Professional (OSCP) certification to further enhance skills in ethical hacking and penetration testing.

Technical Proficiencies

- **Tools and Technologies**:
    - **Vulnerability Management**: Qualys VMDR, Kenna Security, Nessus
    - **Scripting Languages**: Python, PowerShell, Bash
    - **Development Frameworks**: ASP.NET, C#, PHP, Ruby on Rails
    - **Security Testing Tools**: Burp Suite, OWASP ZAP, MobSF, ADB shell
    - **Network and Systems Tools**: Metasploit, Nmap, Wireshark, Splunk

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References

Available upon request.