**AMIR SILWAL**

Security-focused IT professional with hands-on experience in application security, penetration testing, and vulnerability management. Skilled in identifying and remediating vulnerabilities using SAST, DAST, and SCA tools. Experienced in integrating security into DevSecOps pipelines and collaborating with developers to build secure applications. Passionate about proactive security and continuous improvement.

**CONTACT**

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Description automatically generatedSt. Cloud, Minnesota, USA

**LANGUAGE**

English: *Fluent* **|** Nepali: *Native* **|**Hindi: *Fluent* **|**

Urdu: *Fluent* **|**Japanese: *Intermediate*

**SKILLS**

* Dynamic Application Security Testing (DAST):*Burp Suite, OWASP ZAP, Web Inspect, MobSF*
* Static Application Security Testing (SAST):*SonarQube, MobSF*
* Software Composition Analysis (SCA): *Fossa, OWASP Dependency-Check*
* Quality Assurance:*Manual, JMeter, Postman API, Selenium*
* AppSec & DevSecOps: *GitHub Actions, Jenkins, CI/CD*
* Infrastructure: *Docker***,** *Linux, SSH, Nmap, OpenVAS, T*rivy
* Language: Java, *Python, Dart, Bash*
* Vulnerability Assessment & Management: *Nmap, OpenVAS, Metasploit, Burp Suit, OWASP ZAP, Nessus, Qualys*
* Vulnerability Exploitation: *OWASP Top 10, SQL Injection, XSS, CSRF, File Inclusion*
* Others:*Wireshark, Hydra, John the Ripper*
* MS office Suite, Power BI

**EDUCATION**

Master of Science in Information Assurance (MSIA). *Dec 2025*

*St. Cloud State University, St. Cloud, Minnesota, USA.*

CGPA: 3.8

Bachelor of Science in Computer Information Systems 2022

*Pokhara University, Pokhara, Nepal.*

**PROJECTS**

***Secure DevOps Pipeline with SAST & DAST Integration***

* Integrated SonarQube and OWASP ZAP into a Github CI/CD pipeline to automate vulnerability scanning for Python-based applications.
* Developed secure coding guidelines based on OWASP Top 10 to guide development team remediation.
* Generated detailed reports on SAST/DAST findings and collaborated with developers to patch critical issues.

***Penetration Testing on Vulnerable Applications (DVWA, Juice Shop)***

* Hosted and configured Damn Vulnerable Web Application (DVWA) and OWASP Juice Shop in a controlled lab environment to simulate real-world attack scenarios.
* Conducted penetration testing focusing on OWASP Top 10 vulnerabilities, including SQL injection, cross-site scripting (XSS), insecure authentication, and security misconfigurations
* Exploited vulnerabilities using tools like Burp Suite, SQLMap, and OWASP ZAP, demonstrating the impact of weak security practices.

***Penetration Testing on Real-World Web Applications in a Dockerized Environment***

* Hosted and configured real-world web applications (e.g., e-commerce platform) in a Docker environment for penetration testing.
* Conducted comprehensive security assessments, identifying vulnerabilities such as SQL injection, cross-site scripting (XSS), insecure direct object references (IDOR), and broken access controls.
* Conducted penetration testing focusing on OWASP Top 10 vulnerabilities, including SQL injection, cross-site scripting (XSS), insecure authentication, and security misconfigurations, exploiting these vulnerabilities using tools like Burp Suite, OWASP ZAP and trivy.
* Used nftables and tcpdump to monitor and manipulate traffic for advanced threat analysis.

***API and Mobile Security Evaluation***

* Evaluated mobile app security using MobSF and backend API vulnerabilities with Postman and BurpSuite.
* Demonstrated token leakage, insecure data storage, and authentication bypass attacks with recommended remediations.

**Training And Certification**

* Certified in Cybersecurity (CC), ISC2.
* Foundation In Cyber Security, Google.
* Ethical Hacking – TestOut Ethical Hacker Pro, CompTIA (TestOut LabSim).
* MindTap: Hands-On Ethical Hacking and Network Defense, Cengage).
* MindTap: Guide to Computer Forensics and Investigations, Cengage.
* IT Auditing and GRC Master, Think Cloudly.
* Vulnerability Assessment with Cyber Security, Think Cloudly.
* Splunk A SIEM Tool: A Beginner’s Guide, Think Cloudly.
* AWS Cloud Practitioner, Genese Cloud Academy

**Activities**

* Vice President, Cybersecurity – Information Assurance Club, St. Cloud State University, 2025.
* Advisory Member, Technology Fee Committee, St. Cloud State University.
* Lecturer (Project Management and Quality Assurance), Code for Nepal, 2023.

**WORK EXPERIENCE**

Graduate AssistantAug 2024- May 2025

*St. Cloud State University, St. Cloud, Minnesota*

* Supervise and guide student workers while maintaining FERPA compliance to ensure data privacy.
* Maintain and enhance the transcript evaluation template using advanced Excel functions to improve data accuracy.
* Assist national and international students with graduate program inquiries and transition support.

Software Project ManagerMar 2023- Dec 2023

*Pagoda Labs Pvt. Ltd, Kumaripati, Lalitpur*

* Led a 16-member development team on 6+ projects, ensuring secure software development practices and reducing vulnerabilities by 30%.
* Implemented form validation and data filtering, resulting in a 100% reduction in vulnerabilities to Cross-Site Scripting (XSS) attacks in web applications.

Software Quality Assurance                        Sep 2022- Mar 2023

*All Pasal Ltd, Sankhamul, Kathmandu*

* JMeter, and Selenium to validate functionality, performance, and security.
* Designed and executed manual and automated test cases to identify critical bugs across mobile and web platforms, reducing post-deployment errors by over 30%.
* Collaborated closely with development and DevOps teams to ensure timely issue resolution and continuous integration through Agile/Scrum processes.
* Created and maintained detailed bug reports and test documentation using Jira and Confluence, contributing to improved team communication and tracking.
* Performed regression, load, and stress testing, ensuring scalability and optimal system performance under peak user conditions.

Mobile Application Developer  Aug 2021- May 2022

*Bro Soft Pvt. Ltd, Chitwan, Nepal*

* Designed and developed mobile applications using Flutter, embedding secure coding practices such as input validation, API security, and secure data storage to protect sensitive user information across iOS and Android platforms.
* Implemented modular, maintainable code using Bloc for scalable state management while incorporating code obfuscation and encryption mechanisms to minimize attack surfaces and prevent reverse engineering.

Web Developer       April 2020- May 2021

*Intelzy Pvt. Ltd, Chitwan, Nepal*

* Leveraged Git for version control with secure development workflows, including pre-commit hooks and code reviews, to enforce coding standards and detect security flaws early in the software development lifecycle.
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**Conference paper**

Osinaike, T., & Silwal, A. (2025). *Forensic Challenges in Investigating Cybercrime on Social Media Platforms*. *24th Annual Security Conference*, Las Vegas, USA, April 4th.