# **Natnael Gesiab Yohannes**

# Software Engineer | Web & API Security | Penetration Tester

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• Addis Ababa, Ethiopia

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# **Professional Experience**

2023 - 2024

## Software Engineer & Security Consultant (Freelance Contractor)

Addis Ababa, Ethiopia

As a freelance, I've spent the last two years designing, developing, and securing web, mobile, and API applications for diverse clients. My work involved implementing robust security features from the ground up, conducting thorough code reviews to identify and remediate vulnerabilities, and integrating secure development practices into the Software Development Life Cycle (SDLC). I also developed automated tools for testing and validation, ensuring the reliability and security of deployed systems.

2024

#### **Security Engineer Intern**

Addis Ababa, Ethiopia

Development Bank of Ethiopia

As a Security Engineer Intern at the Development Bank of Ethiopia (Feb-May 2024), I monitored and analyzed security incidents, performed incident triage, and responded to threats by analyzing logs and network traffic. I conducted penetration testing on internal web applications, identified vulnerabilities, and recommended mitigation strategies. Additionally, I assisted in firewall configuration reviews and developed automated scripts for reconnaissance and threat detection, contributing to the bank's cybersecurity resilience.

#### **Education**

2021 - 2025

Addis Ababa, Ethiopia

# Bachelor of Science in Software Engineering and Computing Technology Cybersecurity Stream

Addis Ababa University

#### **Skills**

#### **DevSecOps**

- Secure Coding
- Threat Modeling
- Docker
- CI/CD Security
- AWS

# **Programming**

- Go, Python, Node. js, JavaScript, TypeScript
- Flutter and react netive
- Bash, Powershell

#### Certificates

- Certified Cybersecurity ISC2, 2025
- Red Hat System Administration I Red Hat, 2024
- CCSK v4.1 Foundation Training Cloud Security Alliance (CSA), 2024

- **Penetration Testing**
- Web & API Security
- Network Security

#### **Database**

• MySQL, PostgreSQL

- API Penetration Testing API University, 2025
- Penetration Testing and Ethical Hacking Issuing Organization, 2024
- Security Operations Center in Practice IBM, 2025

# **Projects**

### Penetration Testing of AAU Web Applications

- Conducted a comprehensive security assessment on Addis Ababa University's (AAU) web applications, discovering critical vulnerabilities including authentication bypass and outdated services that lead to RCE and privilege escalation.
- Collaborated with the university's IT team to mitigate risks and improve security protocols.

### Securing Enterprise-Level Web Applications Using Web Application Firewalls (WAF)

• Integrated the WAF with the organization's existing infrastructure for seamless protection without performance degradation

# **AI-Powered Web Application Firewall**

- Designed and developed an intelligent, AI-driven Web Application Firewall (WAF) to detect and mitigate advanced web-based threats in real-time.
- Implemented machine learning algorithms for anomaly detection and signature-less threat identification, significantly improving protection against zero-day exploits.
- Integrated the WAF with existing infrastructure, ensuring seamless protection without performance degradation and achieving high accuracy in blocking malicious traffic.