

Mohammed Adnan Jakati

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Education

Master of Science in Cybersecurity (GPA: 3.92/4)

New York University

New York, NY, USA

Expected May 2025

Courses: Application Security, Offensive Security, Applied Cryptography, Software Supply Chain Security

Bachelor of Engineering in Computer Engineering (GPA: 8.38/10)

KLE Technological University

Karnataka, India

May 2022

Technical Skills

Programming Languages: Python, C++, JavaScript, SQL

Frameworks and Libraries: Git, Flutter, Node.js, Flask, REST API

Cloud and DevOps: Amazon Web Services / AWS, Microsoft Azure, Docker, Kubernetes, CI/CD Pipelines

Databases: MySQL, MongoDB, Firebase, NoSQL

Threat Modeling: OWASP Top 10, CWE-25, Secure Code Review, Identity & Access Management

Security Tools: Ghidra, Binary Ninja, Wireshark, Metasploit, Nmap, Burp Suite, Splunk, pwntools, sqlmap, nikto, Hydra, Zap

Specialized Expertise: Reverse Engineering, Web Application Penetration Testing, Secure Code Review, Machine Learning

Work Experience

Research Assistant – Offensive Security

Center of Cybersecurity, New York University

New York, NY, USA

September 2023 – Present

- Performed comprehensive static analysis of TP-Link Archer C20 firmware using Ghidra, identifying critical code paths and potential attack vectors
- Reverse-engineered and decrypted over 10 configuration files by tracing execution flow and analyzing a shared library, successfully cracking DES-encrypted passwords using custom decryption scripts

Security Engineer

Sony India Software Centre

Bangalore, KA, India

August 2022 – August 2023

- Built an early-stage Threat Detection and Response (TDR) system using honeypots and real-time monitoring, enabling instant detection of threats and reducing incident response time by 50%
- Conducted manual and automated code reviews to identify vulnerabilities, ensuring adherence to secure coding practices and industry standards

Software Engineer Intern

Alorb Technologies Pvt. Ltd.

Bangalore, KA, India

January 2022 – May 2023

- Developed and deployed a Contactless Identity Access Management System using Machine Learning and AWS, improving performance by 3x
- Improved system security posture by reducing code redundancy by 20% and enhancing access control mechanisms

Projects

Penetration Testing - Web Based Media Player

LFI, XSS, Stack Buffer overflow, Structure Reversing, Cryptography Analysis, Linux, Privilege Escalation

September 2024 - January 2025

GitHub upon request

- Conducted full-system penetration testing on a web app and related binary, identifying critical vulnerabilities like Local File Inclusion (LFI) and Command Injection leading to Remote Command Execution (RCE) on the target system
- Used Binary Ninja for static analysis and gdb for dynamic analysis to exploit arbitrary read/write, overwriting the .got section to execute commands with escalated privileges
- Developed exploit using python, pwntools and gdb to exploit identified vulnerabilities and perform privilege escalation to get root access on the system
- Authored a 20-page penetration test report detailing the methodologies used, 5 vulnerabilities discovered, exploitation steps, and actionable remediation recommendations to enhance security posture

Rektor - Secure Software Development and Lifecycle

Secure Coding, Secure Code Review, Integrity Verification, Git, VCS

September 2024 - January 2025

[pypi](#) [GitHub](#)

- Utilized secure coding practices and secured software development to build and deploy an app on pypi called Rektor
- Implemented secure development practices using Black, Flake8, Bandit, and mypy, reducing security vulnerabilities by 30% and improving code maintainability
- Strengthened deployment security with Git branch protection rules, SBOM attestation (Sigstore/Cosign), and secret scanning (truffleHog), preventing 100% of accidental secret leaks
- Achieved 80%+ test coverage with pytest and pytest-cov, ensuring robustness in verification processes

Clubs & Extracurricular Activities

- Member of OSIRIS Lab (Offensive security, Incident response and Information security)
- Secretary of the Cybersecurity Club at NYU, responsible for hosting industry talks and CTF orientation events
- Graduate Teaching Assistant for the course of Object Oriented Programming with C++ and Java at NYU Courant