Mohammed Adnan Jakati

New York, NY · (347) 798-5213 · adnanjackady@protonmail.com · github.com/jackhax · linkedin.com/in/adnanjakati

Education

Master of Science in Cybersecurity (GPA: 3.92/4) — New York, NY, USA
New York University — *Expected May 2025*
Courses: Application Security, Offensive Security, Applied Cryptography, Software Supply Chain Security

Bachelor of Engineering in Computer Engineering (GPA: 8.38/10) — Karnataka, India
KLE Technological University — *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 , Oauth, Lambda
Databases: MySQL, MongoDB, Firebase, NoSQL, DynamoDB
Threat Modeling: OWASP Top 10, CWE-25, Secure Code Review, Identity & Access Management
Security Tools: Ghidra, IAM, Wireshark, Metasploit, Nmap, Burp Suite, Splunk, pwntools, sqlmap, SAML, Hydra, Zap
Specialized Expertise: Reverse Engineering, Web Application Penetration Testing, Secure Code Review, Network Security

Work Experience

Offensive Security Researcher — New York, NY, USA
Center of Cybersecurity, New York University — 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 — Bangalore, KA, India
Sony India Software Centre — 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 — Bangalore, KA, India
Alorb Technologies Pvt. Ltd. — January 2022 – May 2023
- Developed and deployed a Contactless Identity Access Management System (IAM) 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 — September 2024 - January 2025
LFI, XSS, Stack Buffer overflow, Structure Reversing, Cryptography Analysis, Linux, Privelage Escalation — 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 privelage 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 — September 2024 - January 2025
Secure Coding, Secure Code Review, Integrity Verification, Git, VCS — 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