

Ibrahim Odat

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Professional Summary

Innovative cybersecurity professional with 3+ years in offensive security, AI-driven threat detection, penetration testing, and autonomous system security. Proven expertise in leveraging advanced AI technologies, performing comprehensive security assessments, and conducting impactful research currently pursuing a Ph.D. focused on integrating AI to fortify autonomous systems.

Technical Skills

- **Cybersecurity:** Penetration Testing, Vulnerability Assessment, MITRE ATT&CK, OWASP Top 10, NIST Frameworks, EDR, SIEM
- **AI & LLM:** Model Fine-Tuning, Prompt Engineering, Knowledge Distillation, Ollama Integration, Autonomous Systems
- **Tools & Platforms:** Kali Linux, Metasploit, Wireshark, Nessus, Nmap, Docker, ROS2, PX4 Autopilot, Gazebo, YOLOv8
- **Programming & APIs:** Python, Bash, SQL, REST APIs, Flask, PHP
- **Cloud & IAM:** AWS Security, Active Directory, Okta, MFA, Zero Trust Architecture

Work Experience

Cybersecurity Researcher - Oakland University, Rochester, MI

Jan 2022 – Present

- Led PX4 Autopilot penetration tests identifying vulnerabilities (buffer overflows, session hijacking, MAVLink exploits); improved security resilience by 80%.
- Conducted Foscam IoT camera audits, and discovered critical firmware flaws, reducing unauthorized access risk by 90%.
- Engineered AI-driven systems using LLM fine-tuning, prompt engineering, and Ollama integrations for proactive threat detection.
- Executed comprehensive MITM and brute-force attack simulations to enhance encryption and intrusion detection.

Cybersecurity Specialist - ZADD Translate, Remote

Jan 2021 – Jan 2022

- Secured domain environments using TsPlus servers significantly limit lateral movement.
- Integrated AI security models into translation platforms, cutting false-positive alerts by 35%.
- Conducted 120+ vulnerability scans with Nessus ensuring full compliance with NIST 800-171.
- Managed security infrastructure (IDS/IPS, VPNs, Firewalls, DLP, SIEM).

Penetration Tester - Future Tec Security Solutions, Detroit, MI

Jan 2020 – Jan 2021

- Completed 200+ penetration tests using Burp Suite and SQLMap, reducing assessment duration by 40%.
- Remediated critical OWASP vulnerabilities, ensuring client compliance with industry standards.
- Developed customized penetration testing tools enhancing security assessment efficiency.

Projects

PX4 Autopilot System Session Hijacking

- Exploitation of the vulnerability in PX4 Software using the Session hijacking technique
- Implement post-exploitation on the PX4 Autopilot system to elevate user privilege to system privilege and compromise the system.

Foscam Camera Security Showcase

- Presented practical IoT exploitations at Black Hat Arsenal.
- Demonstrated authentication bypass vulnerabilities.
- Influenced the adoption of firmware security and encryption standards.

Education

Ph.D. in Computer Science & Informatics - Oakland University, Rochester, MI

Expected Dec 2028

- **Research:** Securing Autonomous Systems through AI Integration

M.S. in Cybersecurity - Oakland University, Rochester, MI

May 2022 – Dec 2023 (GPA: 4.0/4.0)

- **Publication - Thesis:** "Net-GPT: LLM-Empowered MITM Chatbot for UAV Security".

Certifications and Training

- Certified Ethical Hacker (CEH), EC-Council, 2023
- eLearnSecurity Junior Penetration Tester (eJPT), INE, 2022
- Fortinet NSE 1 & NSE 2, Fortinet, 2021.

Websites

- [LinkedIn](#)
- [GitHub](#)