

MOHAMAD HAMZA

NETWORK ENGINEER

Experience

Sept 2025 – Dec 2025

Senior Project University of Bahrain

CryptaCloud – Zero Trust Encrypted & Searchable Cloud Storage App

Technologies: Python, Firebase, Google Cloud Storage, Cryptography (AES-GCM, Argon2id, HKDF, Fernet), CustomTkinter, SQLite

- Built a secure cloud storage application based on Zero Trust principles, assuming the cloud provider is untrusted.
- Implemented end-to-end encryption and local-only key management to ensure complete data privacy.
- Designed a desktop GUI for encrypting, uploading, searching, updating, and securely deleting files.
- Used AES-GCM for encryption and Argon2id for secure password-based key derivation.
- Created an encrypted local index for private content search synced with the cloud.
- Added unlinkable identifiers, anti-rollback, and tamper detection mechanisms for advanced data protection.

Sept 2025 – Oct 2025

Metasploit for Beginners: Ethical Penetration

Testing Coursera

- Used nmap to scan vulnerabilities
- Did vulnerability research and active reconnaissance
- Exploited a vulnerable machine
- Wrote a penetration testing report

Nov 2025 – Dec 2025

Web Application Security Testing with OWASP ZAP

Coursera

- Analysed OWASP ZAP scan results and generated a report
- Used FoxyProxy in Firefox to use it as a proxy
- Found files and folders using dictionary list in OWASP ZAP
- Used OWASP ZAP to crawl a website to find URLs
- Used OWASP ZAP to view and change requests

Education

Sept 2021 – May 2026

Bachelor of Science in Network Engineering

University of Bahrain

Skills

- Python
- Linux
- Penetration Testing
- Command Line Interface
- Virtual Machines
- Burp Suite
- OWASP ZAP

Contact

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