

ALAOUI ISMAILI Hamza

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SUMMARY / RESEARCH INTERESTS

I am a cybersecurity engineer with experience in penetration testing, endpoint detection, and large-scale password robustness auditing at AXA Global Business Services. I’m skilled in PowerShell scripting, automation, and password auditing across diverse systems (Windows, Linux, AS400, SQL, Oracle). Certified (eJPT, Cybereason) with additional experience in building small tech businesses and SaaS projects. Strong research interest in **AI applied to cybersecurity, cryptographic algorithms, and techniques of cryptanalysis**. Winner of the 3rd prize in the ENSIAS Engineer-Entrepreneur contest for innovative project development.

EDUCATION

- Engineering Degree in Information Systems Security – ENSIAS, Rabat, Morocco *Sept 2021 – July 2024*
Specialized Information Systems Security
Final-year project: *Setting up and EDR, comparative study and implementation*
- Preparatory Classes for Engineering Schools (CPGE – Maths/Physics) – Meknes, Morocco *Sept 2019 – June 2021*
- Baccalaureate in Mathematical Sciences A – Meknes, Morocco *Sept 2018 – June 2019*
Graduated with mention “Very Good”

REASEARCH & PROFESSIONAL EXPERIENCE

- AXA Global Business Services – Rabat, Morocco** *Password Analyst | Sept 2024 – Present*
 - Conduct password robustness auditing across diverse platforms (Windows, Linux, SQL, Oracle, AS400) using EPAS Detack tool.
 - Monitor and analyze automated password attack simulations (brute force, dictionary, rainbow tables) to measure robustness.
 - Automate security auditing and reporting tasks using PowerShell scripting.
- AXA Group Operations Morocco – Rabat, Morocco** *Cyber Security Analyst Intern | Feb 2024 – Aug 2024*
 - Deployed and managed Cybereason EDR across enterprise assets, ensuring compliance and detection capabilities.
 - Simulated cyberattacks (reverse shell) in test environment to evaluate detection and response efficiency.
 - Coordinated with IT teams to optimize EDR deployment and troubleshooting.
- NearSecure – Rabat, Morocco** *Cyber Security Intern | Jul 2023 – Aug 2023*
 - Designed a PKI infrastructure with Active Directory Certificate Services.
 - Automated SSL/TLS certificate management in Kubernetes (Minikube, Docker).
 - Integrated certificate services with containerized applications for secure orchestration.
- DATAPROTECT – Casablanca, Morocco** *Junior Penetration Tester Intern | Jul 2022 – Aug 2022*
 - Developed a Python-based tool for automated web app scanning and vulnerability detection (XSS, brute force, directory traversal).
 - Integrated Nmap, Hydra, and Gobuster into the tool with reporting and GUI support.

ACADEMIC PROJECTS

- End-of-Studies Project – Setting up an Endpoint Detection and Response (EDR) Solution: Comparative Study and Implementation** *ENSIAS, Rabat – Morocco | February 2024*
 - Defined project objectives, explored various EDR technologies, and selected Cybereason EDR through a detailed benchmark.
 - Implemented client-side sensors and tested the platform’s detection and response capabilities through a simulated reverse shell attack.
 - Utilized tools and technologies: *Microsoft Excel, ServiceNow, Cybereason EDR, VirtualBox, Metasploit.*
- E-KYC (Know Your Customer): Comparative Study and Implementation Based on Three-Factor Authentication** *ENSIAS, Rabat – Morocco | December 2023*
 - Conducted an in-depth evaluation of current E-KYC systems to identify key areas for improvement.
 - Designed and implemented a 3-Factor Authentication system using Keycloak, integrating password, OTP (Google Authenticator), and facial recognition.
 - Performed a user survey to assess authentication factors based on usability and security.
 - Aimed to balance security and accessibility in digital identity verification.

Quality of Service (QoS) and Network Performance Simulation

ENSIAS,

Rabat – Morocco / December 2023

- Explored QoS mechanisms in network systems using the NS3 simulator.
- Simulated and analyzed network performance under bottlenecks and varying protocol conditions.
- Investigated strategies for effective resource management and protocol optimization.

Man-in-the-Middle Attack on SSL/TLS Using SSL-Stripping Technique

ENSIAS,

Rabat – Morocco / March 2023

- Studied the vulnerabilities of SSL/TLS encryption and the mechanisms behind SSL-stripping attacks.
- Simulated attack scenarios to demonstrate how secure communications can be compromised without breaking encryption.
- Proposed mitigation strategies to strengthen organizational resilience against MITM-based SSL attacks.

ENTREPRENEURIAL PROJECTS

CariGo – Digital Lead Generation Agency for Car Rentals

Co-Founder / 2025

- Established a small-scale agency that helps car rental businesses attract more clients through digital campaigns and irresistible offers.
- Built a lead generation system combining ads, conversion landing pages, and a commission-based model.

Voizzy – Micro-SaaS for Client Testimonial Collection

Founder / 2024

- Designed a lightweight SaaS solution for agencies to collect and display client testimonials.
- Created an elegant, embeddable UI widget to showcase testimonials and improve trust and conversion rates.

iMru – SaaS for Digital Menus & WhatsApp Orders

Co-Founder & Developer / 2024

- Built a SaaS platform enabling small and medium businesses to create digital menus and receive customer orders directly through WhatsApp.
- Developed a dashboard for managing orders, updating menus, and tracking performance metrics.
- Focused on ease of adoption for non-technical users and integration with local business workflows.

TECHNICAL SKILLS

Scripting & Automation

- PowerShell (automation, production scripting) – Proficient
- Python, Bash – Proficient

Web & Software Development

- JavaScript, HTML/CSS – Good knowledge
- Next.js, React – Practical experience
- Laravel (PHP) – Practical experience

Cybersecurity (Offensive & Defensive)

- Cybereason EDR (Certified)
- Metasploit, Burp Suite, Nmap, Wireshark – Strong knowledge
- John the Ripper, Hashcat, Hydra – Practical experience
- OWASP Top 10, TCP/IP, OSI models – Solid understanding
- ISO 27001 (fundamentals) – Basic knowledge

Password Security & Auditing

- EPAS Detack (Password robustness auditing password) – Proficient
- Familiar with simulated attack types (brute-force, dictionary, rainbow tables) via automated tools

Systems & Virtualization

- Windows & Linux administration – Practical experience
- Docker, Kubernetes, VirtualBox – Hands-on experience

Databases

- MySQL, Oracle – Working knowledge

Other Tools

- ServiceNow, Microsoft Office Suite, Photoshop

Certifications:

- **eLearnSecurity:** eLearnSecurity Junior Penetration Tester (eJPT).
- **Cybereason:** Cybereason Certified Technical Specialist.
- **TCM Security:** Practical Web Application Security and Testing.

Languages: Arabic (Native), French (Fluent), English (Fluent)