# NADIL Aïcha Maroua

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# EDUCATION

#### Master in Computer Systems Security

U.S.T.H.B

2022 - Present

- Thesis: Privacy Protection in an e-Health Platform

#### Computer Science Licence

U.S.T.H.B

2019 - 2022

- Thesis: Real-time Monitoring Solution for Core Banking

# EXPERIENCE

#### Internship / Algérie Télécom

Information Systems Division

August 2023

\* Getting acquainted with the IT activities at AT

# Internship / Gulf Bank Algeria

Information Systems Department

April 2022 - June 2022

- \* Development of a real-time monitoring solution for Core Banking
- \* The objective of this project is to develop a monitoring solution for a part of the information system of the host organization. Monitoring these solutions involves the surveillance of database servers as well as application servers.

The project is based on the supervision of these two infrastructures, which play a very important role in the banking world. Firstly, we are developing a solution that retrieves all the information and status from the servers in real time, and then all this data is illustrated in dashboards that are updated automatically.

# **PROJECTS**

#### • Vulnerability Analysis

Conducted a comprehensive vulnerability analysis for a website and the associated environment. Identified vulnerabilities, ranging from critical to low severity. Proposed actionable recommendations to mitigate risks and enhance overall security.

#### • Project on RSA Cryptography, Certification and the Study of Ransomware

In-depth analysis of RSA encryption, implementation of digital certificates and study of security measures to prevent ransomware. As well as the creation of ransomware to understand its attack mechanism and the security measures that can be put in place to counter it.

# • Security Audit and Intrusion Detection

Conducted an attack simulation on a Windows Server 2012 using Kali Linux and Snort on Ubuntu. Detected and analyzed the intrusion using Snort IDS, and configured custom alert rules to identify malicious activity.

#### • Cracking a WEP-encrypted Wi-Fi network

Crack WEP keys from collected data using a monitor mode interface.

#### • Disk control as part of the Operating System module

Implementation of an educational program, operating invisibly and auto-resetting, exploring the use of the Trojan horse method to gain access to disk control without the user's consent.

#### • Data Center Security Research Project

An in-depth analysis of threats to data centers, exploring existing security standards and proposing protective architectures.

#### • Ranked in the top 1% on TryHackMe

Active participation in ethical hacking competitions (Capture The Flag - CTF) and in learning different penetration testing methods and techniques.

# LANGUAGES HOBBIES & INTERESTS - CTF challenges - Reading - Reading - Languages - Travel - English: Advanced intermediate - Sport

# SKILLS

- Programming languages: Python, C/C#, Java, JavaScript

- Web development: HTML, CSS, React, Node.js

- Containerization: Docker, Kubernetes

- Databases: MySQL, Oracle

- Operating systems: Windows, Linux

- Virtualization: VMware, VirtualBox

 Project management: Strategic planning and project organization, Rigorous monitoring of deadlines and schedules, Coordination of multidisciplinary teams