

Madjda FARES

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EDUCATION

PhD Student in Computer Science

Jan 2026 - present

Université de Montréal, DIRO, Baudry Lab - Quebec

Engineering Degree in Software Engineering, specialization: Cybersecurity

Dec 2020 - Sep 2025

École Supérieure des Sciences et Technologies de l'Informatique (ESTIN) - Bejaia 15.30 /20

Master's Degree in Software Engineering, specialization: Cybersecurity

Jun 2023 - Sep 2025

École Supérieure des Sciences et Technologies de l'Informatique (ESTIN) - Bejaia 15.83 /20

Maths Baccalaureate's Degree

Sep 2020

Teyssir School - Algiers 16.19 /20

EXPERIENCE

Research Intern, Software Engineering (CI/CD Security)

Feb 2024 - Sep 2025

Université de Montréal, DIRO, Baudry Lab - Quebec & Remote

- . Studied GHA supply-chain exposures and compared **9** scanners on coverage, detection, and runtime, delivering hardening steps.
- . Built a taxonomy of **10** workflow security weaknesses and a curated benchmark of **596** real workflows.
- . Co-authored a research article titled "[Unpacking Security Scanners for GitHub Actions Workflows](#)".

Information Systems Security Manager Intern

Jul 2024 - Aug 2024

Ministry of Energy of Algeria - Algiers

- . Conducted a phishing simulation with Social-Engineer Toolkit to assess vulnerabilities and raise cybersecurity awareness.
- . Configured email security protocols (SMTP authentication, SPF) increasing the probability of bypassing spam filters by **84%**.
- . Troubleshooted and resolved network configurations and proxy issues, achieving **99%** system uptime for email services.

Database Administrator Intern

Jun 2023 - Jul 2023

Hamoud Boualem - Algiers

- . Managed a SQL Server-based complaint management web-app, overseeing all aspects of system functionality.
- . Focused on database design and optimization, implementing best practices to enhance data storage.
- . Ensured efficient data handling, leading to improved overall system performance.

PROJECTS

Capture The Flag Competitions (CTF)

IngeHack - CSAW'24 - PicoCTF - NexZe

Mar 2024 - Feb 2025

- . Applied offensive security techniques to solve real-world problems enhancing team collaboration (**7th** out of 20 - NexZero).

Reproduced and Analyzed GitHub CI/CD Workflow Security

Nov 2024

- . Reproduced a key study on GitHub CI workflows, focusing on workflow triggers and permissions security vulnerabilities using a dataset of 200,000 workflows.

- . Developed a robust pipeline for data collection, YAML parsing, and trigger event extraction using tools like pandas, YAML, and matplotlib.

- . Validated results against the original research, highlighting security risks and proposing improvements to workflow configuration and permissions.

Building a SIEM Lab

Sep 2024

- . Configured Elastic Stack (Elasticsearch, Logstash, Kibana) to establish a robust (SIEM) environment.
- . Developed expertise in real-time log analysis and security monitoring, enabling effective threat detection and response.
- . Set up alerts for security incident detection, significantly enhancing incident detection speed and responsiveness.

Vulnerability Management

Aug 2024

- . Conducted comprehensive vulnerability assessments with Nessus, reducing critical vulnerabilities from **23%** to **2.2%**.

Advanced Cryptography

ESTIN

Feb 2024 - Jun 2024

- . Implemented cryptographic algorithms (RSA, Elgamal, miniAES, miniDES, ECC, Schnorr, Rabbit) to enhance security.

Network Security Assistant Application	ESTIN	Nov 2023 – Jan 2024
. Developed an intrusion detection application using Python, increasing network security by proactively identifying threats.		
Hackathons	Junction Algiers Hackathon, Micro Club Hackathon	Mar 2023 – Oct 2023
. <u>Transportation Management Application</u> : Developed a system for optimizing transportation routes and schedules.		
. <u>Movement Tracker</u> : Created a web app to track employee movement, utilizing backend development with Node.js.		
DDOS Attack Simulation	ESTIN	May 2023
Dentist’s Office Management Application (.NET C#)	ESTIN	Feb 2022 – Jun 2022

SKILLS

Cybersecurity : Nmap, Scapy, SET, Wireshark, Cisco Packet Tracer, Audits, Nessus, DNS Lookups, OSINT, Forensics, OWASP	
CI/CD & DevOps : GitHub Actions, YAML, Docker, Git	
Operating Systems & Cloud : Windows, Ubuntu Linux, Kali Linux, Microsoft 365, VirtualBox, VMware	
Programming Languages : C#, Java, Python (pandas, matplotlib), C, Matlab, Assembly	Hardware Development : Arduino
Web Development : HTML, CSS, Node.js, ReactJS, Postman	Database : SQL, MongoDB, NoSQL
Design : Figma, Adobe XD, Photoshop	Multimedia : Photography, Adobe Lightroom

SCHOLARSHIPS & CERTIFICATIONS

Mitacs Globalink scholarship	Canada	2025
Supporting the Université de Montréal research internship		
Junior Cybersecurity Analyst (Career Path)	Cisco Networking Academy	Jul 2024 – Oct 2024
. Introduction To Cybersecurity	. Networking Basics	
. Networking Devices and Initial Configuration	. Endpoint Security	
Blockchain Basics	Great Learning	Oct 2024
Junior Full Stack Web Developer	FreeCodeCamp	Apr 2024 – Oct 2024
. JavaScript Algorithms and Data Structures	. Front End Development Libraries	. Back End Development and APIs

INVOLVEMENT

Multimedia Department Manager	ByteCraft Club – ESTIN	Sep 2021 – Jun 2024
. Managed multimedia content, and led photography teams, achieving a 60% increase in social media.		
External Relations Department Member	Nexus Security Club – ESTIN	Sep 2023 – May 2024
Photography Team Leader	School Of AI Club – ESTIN	Sep 2022 – Jun 2023
STEM Community Engagement	STEAM Center – World Learning Algeria	Jun 2019 – Nov 2020

LANGUAGES

Arabic (Native)	Kabyle (Native)	English (Fluent)	French (Fluent)	Turkish (Intermediate)	Spanish (Beginner)
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