

Madjda FARES

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EDUCATION

PhD Student in Computer Science <i>Université de Montréal, DIRO, Baudry Lab - Quebec</i>	Jan 2026 - present
Engineering Degree in Software Engineering, specialization: Cybersecurity <i>École Supérieure des Sciences et Technologies de l'Informatique (ESTIN) - Bejaia</i> 15.30 /20	Dec 2020 - Sep 2025
Master's Degree in Software Engineering, specialization: Cybersecurity <i>École Supérieure des Sciences et Technologies de l'Informatique (ESTIN) - Bejaia</i> 15.83 /20	Jun 2023 - Sep 2025
Maths Baccalaureate's Degree <i>Teyssir School - Algiers</i> 16.19 /20	Sep 2020

EXPERIENCE

Research Intern, Software Engineering (CI/CD Security) <i>Université de Montréal, DIRO, Baudry Lab - Quebec & Remote</i>	Feb 2024 - Sep 2025
<ul style="list-style-type: none">. 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 <i>Ministry of Energy of Algeria - Algiers</i>	Jul 2024 - Aug 2024
<ul style="list-style-type: none">. 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 <i>Hamoud Boualem - Algiers</i>	Jun 2023 - Jul 2023
<ul style="list-style-type: none">. 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) <i>IngeHack - CSAW'24 - PicoCTF - NexZe</i>	Mar 2024 - Feb 2025
<ul style="list-style-type: none">. 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
<ul style="list-style-type: none">. 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
<ul style="list-style-type: none">. 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
<ul style="list-style-type: none">. Conducted comprehensive vulnerability assessments with Nessus, reducing critical vulnerabilities from 23% to 2.2%.	
Advanced Cryptography	<i>ESTIN</i> Feb 2024 - Jun 2024
<ul style="list-style-type: none">. Implemented cryptographic algorithms (RSA, Elgamal, miniAES, miniDES, ECC, Schnorr, Rabbit) to enhance security.	

Network Security Assistant Application	<i>ESTIN</i>	Nov 2023 - Jan 2024
. Developed an intrusion detection application using Python, increasing network security by proactively identifying threats.		
Hackathons	<i>Junction Algiers Hackathon, Micro Club Hackathon</i>	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	<i>ESTIN</i>	May 2023
Dentist's Office Management Application (.NET C#)	<i>ESTIN</i>	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	<i>Canada</i>	2025
Supporting the Université de Montréal research internship		
Junior Cybersecurity Analyst (Career Path)	<i>Cisco Networking Academy</i>	Jul 2024 - Oct 2024
. Introduction To Cybersecurity	. Networking Basics	
. Networking Devices and Initial Configuration	. Endpoint Security	
Blockchain Basics	<i>Great Learning</i>	Oct 2024
Junior Full Stack Web Developer	<i>FreeCodeCamp</i>	Apr 2024 - Oct 2024
. JavaScript Algorithms and Data Structures	. Front End Development Libraries	. Back End Development and APIs

INVOLVEMENT

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

LANGUAGES

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