

Iyed Mdimegh

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📍 Tunis, Tunisia

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Education

National Institute of Applied Science and Technology (INSAT)

Software Engineering Cycle (National Engineering Diploma)

09/2022 – 05/2027

Skills

Artificial Intelligence & ML: Reinforcement Learning, RAG, TensorFlow, Keras, Scikit-Learn, Computer Vision, CNN, Numpy, Matplotlib, Pandas

Software Development: Docker, OpenCV, Express.js, Node.js, Django, React.js, Git, PostgreSQL, MongoDB, PHP, Symfony, Socket.io, HTML, JavaScript, CSS, SEO

Other: Jira, C, C++, Java, SAP Joule

Professional Experience

Free2Move – Software Engineering Intern - SAP Joule Integration

07/2025 – 09/2025

- Developed AI-driven automation using SAP Joule to optimize business processes in SAP S/4HANA.
- Created custom agents to automate tasks like report generation, improving efficiency and decision-making.

Vectors – Software Engineering Intern

06/2025 – 07/2025

- Rebuilt "Jira Comment Toolkit" using modern technologies, replacing legacy code.
- Developed an Atlassian app to manage and classify Jira comments with AI-driven labeling for improved workflow.

Pixemantic – AI Software Engineer Intern

07/2024 – 09/2024

- Applied advanced AI and deep reinforcement learning to optimize 3D item arrangement in containers, improving space utilization and efficiency.
- Transformed the solution into a full-stack web application using Django and React.

PROXYM Group – Software Engineer Intern

06/2024 – 07/2024

- Created a social media web application from scratch using the MERN stack and Socket.io.

Publications & Conferences

Mdimegh, I. (First Author), et al.

Intelligent Chess Robot Tutor: A Low-Cost, Vision-Guided Multi-Level System with Real-Time Tracking and Advanced Gameplay Analysis.

IEEE International Conference on Systems, Man, and Cybernetics (SMC), Vienna, Austria, 2025.

[Project Repository](#)

IEEE SMC 2025 Conference – Oral Paper Presentation

10/2025

Presented research on educational robotics, computer vision (YOLO-based detection), and adaptive AI gameplay.

Projects

SMARTSHIELD - AI-Driven Cybersecurity Incident Response Platform

09/2024 – 12/2024

Team Leader & AI Engineer

Led a team to design an AI-driven platform for automated threat detection and response. Developed machine learning models for real-time security analysis, enhancing system performance and scalability.

INSAT Chess Coach Robot

09/2024 – 01/2025

Directed the development of a robotic chess coach integrating computer vision and robotics. Designed a robotic arm for real-time piece manipulation and adaptive gameplay to improve chess learning.

University Management Platform

01/2024 – 02/2024

Developed a web platform featuring user analytics, profile management, video courses, attendance tracking, schedule management, and communication tools for students, teachers, and admins.

Awards

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| 1st Prize - IEEE TSYP 12 Challenge (SMC Chapter) | 12/2024 |
| National competition gathering over 20 universities across Tunisia. Developed a chess coach robot integrating computer vision and robotics. | |
| 2nd Prize - IEEE TSYP 12 Challenge (CS Chapter) | 12/2024 |
| National competition with over 20 participating Tunisian universities. Developed SMARTSHIELD, an AI-driven cybersecurity incident response platform. | |
| 3rd Place - AINS Hackathon (Artificial Intelligence National Summit) | 07/2024 |
| National competition gathering elite students from multiple Tunisian universities (20 participating teams). | |

Organizations

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|---|-------------------|
| IEEE INSAT SB CS Chapter – <i>Vice Chair and Instructor</i> | 08/2024 – 07/2025 |
| Organized technical workshops and events, and led tutoring sessions on Artificial Intelligence, specifically Deep Reinforcement Learning. | |
| Junior Enterprise INSAT – <i>Hackathon Organizing Committee President & Senior Member</i> | 09/2023 – 02/2025 |
| Organized "Hack for Good," a competition with three workshops, engaging participants nationwide to contribute to projects focused on Corporate Social Responsibility (CSR). | |
| Notre Grand Bleu – <i>Senior Member</i> | 04/2021 – 08/2023 |
| Association aiming to preserve marine life in the Mediterranean. | |

Languages

English: Fluent **French:** C1 (TCF certified) **Arabic:** Native **Spanish:** Beginner **German:** Beginner