

Bader Eddine

DAKHLI

Electrical and
Automation Engineer



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SKILLS

Programming Languages :

Python, C, C++, C#, JS, CSS, XML,
VHDL, MATLAB, Assembly, Dart .

Softwares :

Visual Studio, Milestone XProtect,
PyCharm, TIA Portal, Proteus ISIS,
Android Studio .

Frameworks :

Mobile (Flutter, Qt), Web (Django),
GStreamer .

Embedded System :

Arduino, Raspberry Pi, ARM,
STM32, FPGA .

Adobe Softwares :

Photoshop, Illustrator, Premiere Pro,
Xd .

ORGANIZATIONS

Club Alliance Of Engineers ENIG

Marketing Manager

Feb 2023 – Oct 2023

The National Event ENIGROBOTS

4.0

Marketing and Media Manager

Aug 2022 – Mar 2023

Club High Tech ENIG

Marketing Manager

Dec 2021 – Nov 2022

LANGUAGES

French — Intermediate Proficiency

English — Intermediate Proficiency

Arabe — native language

PROFILE

Electrical and Automation Engineer with a strong focus on robotics and Industry 4.0. Skilled in IoT, AI, and real-time systems, with a hands-on approach to solving complex technical challenges.

EDUCATION

Electrical and Automation Engineering Degree

National Engineering School of Gabes

Sep 2021 – Sep 2024

Preparatory Cycle to Engineering Studies

Preparatory Institute to Engineering Studies of Sfax

Sep 2019 – Jun 2021

High School Diploma in Technical Science

Abu Kacem Chebbi High School - Chebba

Sep 2018 – Jun 2019

PROFESSIONAL EXPERIENCE

Galvanization and Metal Processing Company (SGTM) – Pouline Group Holding

Maintenance Manager

Nov 2024 – Jul 2025 | El fahs - Zaghouan

- Managed preventive and corrective maintenance of industrial systems, covering electrical, mechanical, and automation equipment to ensure operational continuity.
- Oversaw energy consumption, conducted regular monitoring, and implemented optimization strategies to improve energy efficiency and reduce utility costs.

Keywords: Maintenance Management, Industrial Automation, PLC, TIA Portal, Energy Optimization.

ENOVA Robotics

End-of-studies internship

Feb 2024 – Jul 2024 | sousse

- Developed a video processing service for real-time video stream analysis, integrated with Milestone XProtect , enabling object detection (people, vehicles, faces) using OpenVINO and DL Streamer.
- Created a command interface in XProtect Smart Client to manage the service Docker container, facilitating control of video processing and real-time metadata exchange via WebSocket.

Keywords: OpenVINO, DL Streamer, GStreamer, Docker, WebSocket, Milestone XProtect, MIP SDK, C#,C++.

LEONI WIRING SYSTEMS

Engineer Internship

Jul 2023 | Sousse

- Enhanced the security of Leoni's CSWIN software access systems by addressing vulnerabilities in traditional authentication methods.
- Designed, developed, and integrated a facial recognition-based solution, bolstering the software's security.

Keywords: OpenCv, PyTorch, TensorFlow, NumPy, facial recognition, deepface.

LEONI WIRING SYSTEMS

Worker Internship

Aug 2022 | Sousse

- Identified electrical components, electronic boards, and programmable logic controllers (PLCs).
- Conducted post-production cable testing and strengthened quality control measures in electrical manufacturing, implementing rigorous testing protocols.
- Developed and implemented quality control protocols.

Keywords: Identification, PLC, LADDER, Quality Control, Cable Testing.

PROJECTS

Detection and Tracking of Dynamic Objects in Videos

- Developed a system for detecting and tracking dynamic objects in videos.
- Implemented Python, OpenCV, and YOLOv5 for object detection in each video frame. Utilized correlation and Kalman filtering for continuous object tracking.

Keywords: Python, Google Colab, OpenCV, YOLOv5.

Intelligent System Diagnosis

- Employed artificial intelligence to diagnose and automatically resolve issues within a complex system.
- Integrated sensors for real-time system monitoring, employing machine learning for anomaly detection and automated solutions.
- Elevated system reliability, efficiency, and operational performance.

INTERESTS

Sports | Robotics | Design |
Camping

Keywords: Python, AI, diagnosis, data analysis.

Object Detection and Grasping with ABB Robot

- Developed a vision system to detect parts and compute their 3D poses using OpenCV and transformation matrices.
- Enabled accurate grasp planning for an ABB 6-axis robot through orientation analysis and coordinate transformations.

Keywords: OpenCV, Pose Estimation, Robotics, ABB, Python, RoboDK, Grasp Planning

Obstacle Detection through Shape Recognition and Classification

- Developed a robotic system capable of real-time object recognition and classification using YOLO.
- Optimized the robot's movement trajectory, allowing it to avoid obstacles and navigate efficiently.

Keywords: YOLO, TensorFlow, Object Detection, Classification, Real-Time, Path Optimization, Robotics.

Personal Portfolio Website: My Resume and Projects

- Crafted an interactive website featuring my resume and professional projects.
- Developed using Django, Python, CSS, HTML, JavaScript, pgAdmin, and SQL.
- Showcased my expertise in web development and database management, creating an interactive personal portfolio highlighting my work and experience.

Keywords: Python, Django, CSS, HTML, JS, pgAdmin, SQL.