

KBALA Youssef

Rabat, Morocco

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About Me

Freshly graduated Data engineer passionate about digitalization and IoT technologies. Currently seeking a new opportunity to gain practical experience and apply my skills in real-world scenarios. Highly motivated to learn and contribute to innovative projects, with a strong interest in adapting to new environments and work cultures.

Education

- **Engineering Degree in Data Engineering** - National Institute of Posts and Telecoms, Rabat *2022–2024*
- **Bachelor's Degree in Electronics and Industrial Systems** - Faculty of Sciences, Fez *2021–2022*
- **DUT in Embedded Systems** - Higher School of Technology EST, Fez *2019–2021*

Professional Experience

Harmony Technology: Industrial Digitalization & IIoT 6 Months, 2024

- Developed IoT systems for inventory and stock management, increasing process efficiency and product traceability.
- **Tools:** Apache Kafka, MERN, RFID, Design Thinking, Risk Management, System Design.

OCP Group: Predictive Modeling 2 Months, 2023

- Developed a production prediction model using time series to optimize the planning of production and phosphate storage.
- **Tools:** CRISP-DM, LSTM, Python, Flask, Time Series analysis.

JakJoud Labs: AI for Quadruped Robots 2 Months, 2023

- Implemented the PPO algorithm to improve the stability and movement of quadruped robots, integrating Lidar sensors for navigation.
- **Tools:** RL, OpenAI Gym, Python, Lidar.

ADI Solar: Smart Farming Transformation 3 Months, 2021

- Deployed IoT-based solutions for smart agriculture, enhancing security and efficiency.
- **Tools:** Raspberry Pi, Python, RTOS, Soil Sensors, IP Camera.

Projects

- **Seismic Victim Rescue Robot:** Developed a robot for exploration and victim detection, featuring real-time data streaming, thermal detection and integrated camera, location and orientation sensors. Communicated to a base receiver through nRF technology.
- **12 DoF Spider-Like Robot:** Designed and implemented a spider-like robot using a Raspberry Pi. Utilized I2C communication to control its joint's servo motors for precise and synchronized movement.
- **Tactical Explorer:** Developed an autonomous robot for exploration and object transport, with dual modes: autonomous obstacle avoidance and manual control via a Flask web interface.

Community Engagement

- **Technology Teacher - Youth Center:** Introduced technology and digital world to young students (age: 8-15).
- **VEX Robotics:** Tournament Referee during VEX competitions.

Languages

- **English:** Fluent
- **French:** Intermediate
- **Arabic:** Native Language