Asma Akremi

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PROFESSIONAL SUMMARY

Embedded Systems and IoT Developer, recently graduated with a Bachelor's degree in Embedded Systems and Mobile Development. Experienced in designing and deploying real-time IoT solutions, integrating embedded hardware, cloud platforms, mobile and web applications. Passionate about creating scalable, high-quality systems and continuously learning emerging technologies.

EXPERIENCE AND PROJECTS

Inotek Engineering
Feb 2025 – May 2025

Internship – Smart Wearable Navigation System (Final-Year Project) — *Remote*

- Engineered a wearable system integrating **Raspberry Pi, ESP32, haptic feedback, and multi-sensor fusion**, enabling real-time navigation assistance for visually impaired users with 75% obstacle detection accuracy.
- Implemented real-time **YOLOv5s + MiDaS** models for obstacle detection and depth estimation, reducing detection latency by 25%.
- Enhanced a **multi-role Flutter application ecosystem** for users, caregivers, and administrators, improving task tracking efficiency by 30%.
- Applied **CI/CD practices and Git version control** to streamline development and deployment cycles, reducing deployment errors by 20%.

Sagemcom
Jan 2024 – Feb 2024

Internship – Predictive Maintenance — *Ezzahra, Ben Arous*

- Built a machine monitoring dashboard combining historical logs, operational data, and staff activities, increasing predictive maintenance efficiency by 18%.
- Developed a responsive frontend (HTML, CSS, JS, Bootstrap) connected to backend services(PHP), enabling real-time monitoring of 10+ production machines.
- Automated reporting and data visualization, reducing manual reporting time by 40% for maintenance staff.

ARA Consulting
Jan 2023 – Feb 2023

Internship – Web Development — *Montplaisir, Tunis*

- Created responsive websites using Bootstrap and JavaScript, increasing page load speed by 20% and improving mobile user experience.
- Collaborated in Agile sprints with code reviews and team contributions.

Connected Agricultural Stake
2024

Academic Project – IoT Agriculture System — *ISET Bizerte*

- Implemented a precision agriculture system with soil and environmental sensors to optimize irrigation, reducing water usage by 20% and increasing crop yield consistency.
- Deployed GSM + LoRaWAN for remote, real-time data collection, covering over 50 hectares of farmland.
- Developed a **mobile dashboard** for visualization and smart irrigation alerts, enabling farmers to monitor soil conditions and receive timely notifications.

Animal City
2024

Part-Time Customer Service — *El Mourouj, Ben Arous, Tunisia*

- Developed strong transferable skills in **communication, teamwork, and adaptability** while assisting customers with pet products and services.
- Handled responsibilities under pressure and provided friendly, reliable service in a fast-paced retail environment.

SKILLS

- **Embedded and IoT:** Raspberry Pi, ESP32, Arduino, ESP8266, Sensors, Actuators, LoRaWAN, GSM, MQTT

- **Edge AI and Computer Vision:** YOLOv5s, MiDaS, Python, PyTorch

- **Cloud Platforms:** Microsoft Azure IoT Hub, HiveMQ, Edge Computing

- **Mobile Development:** Flutter, Kotlin

- **Web Development:** HTML5, CSS3, JavaScript, React, Bootstrap, PHP

- **Databases:** MongoDB, Firebase, MySQL

- **DevOps and Tools:** Git, CI/CD, Docker, Linux/Ubuntu

- **Methodologies:** Agile Scrum, CRISP-DM

- **Soft Skills:** Communication, Teamwork, Problem-Solving, Time Management, Adaptability

- **Languages:** English (B2), French (C1)

EDUCATION

Higher Institute of Technological Studies of Bizerte 2022 – 2025
Bachelor of Applied Science in Embedded Systems and Mobile Development *Bizerte, Tunisia*
- Graduated with honors and jury commendation