

# Souad Hassen-Bouzouita

## MECHATRONICS ENGINEER

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## Skills - Languages

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- **Programming Languages:** JavaScript, TypeScript, Python, SQL
- **Frontend:** React, HTML, CSS, Tailwind, Zustand
- **Backend:** Node.js, Express.js, MongoDB, PostgreSQL, REST APIs, GraphQL
- **Other:** Agile Methodologies, Git, Github Actions, Cypress, Ignition, Emulate3D
- **Languages:** Fluent (Reading, writing, and speaking) in English, Arabic & French

## Professional Experience

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### Full-Stack Development Projects | 07/2024 – 01/2025

University of Central Florida – Orlando, Florida

- **Friends Without Benefits (MERN Stack):** A multiplayer scavenger hunt game where you **use your webcam** to find common objects, score points, and climb the leaderboard. Features include real-time object recognition with a custom **TensorFlow model**, video feeds, chat functionality, and competitive gameplay.
- **Cat-GPT (PERN Stack):** An interactive virtual pet application leveraging **React** for the front end **and Node.js + Express** for the back end. Users engage with AI-powered pets in real-time, with **GPT-based** chat functionality enabling dynamic interactions.
- **NewbieFit: (HTML, CSS, JS):** A motivational web app designed to encourage gym attendance and fitness routines, providing an engaging platform for beginners.

### Manager of Software Engineering | 01/2024 - Present

CLX Engineering – Sanford, Florida

- Build and nurture strong customer relationships, ensuring alignment with their needs and managing expectations effectively.
- Oversee project execution by setting clear goals, timelines, and deliverables while coordinating with cross-functional teams.
- Deliver comprehensive weekly project updates and actionable strategic recommendations to the leadership team.

### Project Engineer & Project Lead | 04/2021 – 01/2024

CLX Engineering – Sanford, Florida

- Building airports' Scada systems from scratch; Upper-level communication with PLC, graphics, field devices configuration.
- Hands-on experience at different airports (BNA -Nashville, MSY -New Orleans, COS -Colorado Springs, CAE -Columbia).
- Hands-on experience with Automation products and practical problem solving on job sites.

### Quality Engineer | 12/2019 - 12/2020

Remy Automotive Tunisia - Monastir, Tunisia

- Coordinated with Sales, Engineering and Production departments to identify problems, examined solution options, implemented action plans, and provided resources to resolve customer complaints and concerns.
- Initiated engineering changes to impact improved product performance and lower cost.
- Led the warranty project and assisted warranty analysis on Oracle E-Business Suite.

### Internships | 02/2019 – 08/2019

Pprime Institute - RobiOSS Laboratory - Poitiers, France

- Improvement of the Dynamic compensation of a collaborative robot in context of medical applications.
- The Dynamic compensation was done on the 7 DoF Franka Emika robot |Keywords: Matlab, Simulink, ROS.

## Publications

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Salah S., Sandoval J., Ghiss M., Laribi M.A., Zeghloul S. (2020) *Online Payload Identification of a Franka Emika Robot for Medical Applications*. (eds) *Advances in Service and Industrial Robotics*. RAAD 2020. *Mechanisms and Machine Science*, vol 84. Springer

## Education

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**Bachelor of Mechatronics Engineering** | National School of Engineers of Sousse ENISO, Tunisia | **2014 - 2019**

Former Member of **Institute of Electrical and Electronics Engineers (IEEE)** | **2016 - 2019**