# EL BOUYED Zainab

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ZainabElbouyed

First-year engineering student specializing in Ubiquitous and Distributed Systems – Cloud & IoT. Passionate about new technologies, I have a particular interest in web development, connected objects, and innovative solutions that combine technology with real-world impact. Curious, motivated, and always eager to learn, I am seeking opportunities to apply my skills, develop new projects, and grow in a dynamic and stimulating environment.

#### Education

2024-Present Engineering cycle at INPT - Ubiquitous and Distributed Systems Engineering - Cloud & IoT.
2022-2024 Preparatory classes for engineering schools (CPGE) PSI, Okba Ibn Nafea High School - Dakhla.
2022 Baccalaureate in Physical Sciences with highest honour, Lalla Khadija High School - Dakhla.

### **Projects**

#### GreenTech SmartBin: Connected Solution for Sustainable Waste Management

October 2024 - Present

- Developed an intelligent waste bin using IoT, Arduino, and sensors for automated waste level tracking. Implemented AI-based algorithms
  for predictive waste analysis and optimized collection schedules. Created a web application using JavaScript, HTML, and CSS to manage
  and visualize collection routes efficiently.
- Improved waste management efficiency through real-time monitoring, optimized collection routes, and reduced environmental impact by reducing fuel consumption and carbon emissions.

## Personal Portfolio Website l HTML, CSS, JavaScript et Bootstrap

January 2025 - March 2025

- Creation of my first personal website, an online portfolio, enabling the learning of web development fundamentals and the acquisition of design and layout skills.
- Determination to improve this project in the future by deepening knowledge and exploring new technologies.
   GitHub Repo
   Online Portfolio

#### Technical skills

DevOps Tools: Version Control (Git,GitHub), Bash scripting.Programming Languages: Java (POO), C, C++ (POO), Python.

Web Development: HTML, CSS, JavaScript. Frameworks: Bootstrap, Express.js, React.js.

Embedded & IoT Development: Arduino, ESP32.

 $\textbf{Embedded \& Distributed Systems Architecture:} \ \ \text{Software Architecture (UML: Unified Modeling Language), Embedded systems architecture,} \\$ 

Processor and memory management (CPU, RAM, cache optimization), Hardware-software interaction.

Operating Systems: Windows, Linux (Ubuntu).

Database Management: Relational databases (SQL).

# Soft skills

Teamwork: Experienced in collaborating on group projects, actively contributing and supporting peers.

Communication: Able to clearly convey ideas, both written and verbal.

**Problem Solving:** Strong analytical thinking with a creative approach to troubleshooting. **Adaptability:** Quick to learn new technologies and adapt to changing environments. **Time Management:** Skilled at managing multiple tasks and meeting deadlines efficiently.

#### Languages

French: (B2) English: (B1) Arabic: (C2)