

# Fernando Román Hidalgo

ROBOTICS AND AUTOMATION ENGINEER

41909, Salteras, Seville, Spain

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## Summary

Engineer with a **multidisciplinary profile and systemic vision**, featuring professional experience in developing technological solutions and currently completing postgraduate studies. I possess a **high capacity for abstraction in solving complex problems** and **accelerated self-taught learning**, enabling me to provide significant value in technically demanding projects. My objective is to consolidate an ambitious career plan, with a focus on automation and embedded software, within dynamic and innovative environments where continuous improvement is the standard.

## Experience

### Ai Artificial Aerospace & Defense

SOFTWARE ENGINEER

Seville, Spain

April 2025 – Present

- **Management and Client Relations:**

- Project management for the development of a process automation application for a major aerospace company.
- Direct customer interaction for requirements definition and specification.
- Technical leadership and coordination in the development of custom solutions.

- **Technical Development and Automation:**

- Fullstack development, applying coding best practices, efficiency, and organization.
- Design and implementation of a digital twin for a composite material production plant, oriented towards simulation and optimization of industrial processes.
- Software integration and deployment using Docker containers.
- Automation and orchestration of workflows with Apache Airflow.
- Development of AI models for early failure detection and scheduling algorithms based on CP-SAT.
- Acquisition and interpretation of data from industrial sensors.

## Projects

### Interactive CV & Portfolio

WEB PORTFOLIO

- To see all my projects in detail, check out my [Interactive Portfolio](#)

## Achievements

2024 Winner, National Competitive Robotics League (LNRC) - Minisumo Category

Spain

## Education

### University of Seville

MASTER'S DEGREE IN ELECTRONIC ENGINEERING, ROBOTICS AND AUTOMATION

Seville, Spain

2025 – 2026

### University of Seville

BACHELOR'S DEGREE IN ELECTRONIC ENGINEERING, ROBOTICS AND MECHATRONICS (GPA: 7.5/10)

Seville, Spain

2021 – 2025

### IES Heliche

TECHNOLOGICAL BACCALAUREATE (GRADUATED WITH HONORS DISTINCTION)

Seville, Spain

2019 – 2021

# Certifications

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**Idexa**

ADVANCED PYTHON COURSE

Online

January 2026



**Cambridge Assessment English**

CERTIFICATE IN ADVANCED ENGLISH (C1 ADVANCED)

September 2024

## Skills

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**Programming** C, C++, Python, MATLAB, Simulink, ROS, JavaScript, VBA, HTML, CSS, SQL

**Electronics** Digital/Analog electronics, microcontrollers (MSP430, ESP32, Arduino), FPGA, automation and control

**Simulation** System modeling and simulation, PID control design, embedded systems integration

**DevOps** Docker, Linux, version control with Git (merges, pull requests), Apache Airflow

**Networking** TCP/IP, MQTT, CAN bus

**3D Design** Fusion 360, FreeCAD

## Soft Skills

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Technical leadership, multidisciplinary teamwork, effective communication, problem solving, adaptability, and a **high learning curve**.

## Languages

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**Spanish** Native

**English** Professional competence

**French** Basic competence