

# Jesús Silva Utrera

**Robotics Engineer**

Barcelona, Spain

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## Profile

Robotics Engineer specialized in autonomous navigation and mobile robotic systems, with experience owning and delivering robotics features across multiple projects. Comfortable working at system level, coordinating with multidisciplinary teams, and contributing to technical decisions in production-oriented environments.

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## Professional Experience

### Mid Robotics Engineer — Ekumen

March 2024 – Present

- Owned the development and integration of autonomous navigation features for mobile robots across multiple projects.
- Contributed to system-level design decisions involving navigation, localization, and motion control.
- Designed modular **ROS 2** architectures reused across different robot platforms and projects, increasing scalability and ease of maintenance of the solutions.
- Defined simulation-based validation workflows using **Gazebo** to reduce the risk in deployments.
- Collaborated closely with product, robotics, and software teams in distributed, international environments.

**Technologies:** ROS 2, Nav2, C++, Python, Gazebo, Docker, Git

### Robotics Engineer — Alisys

April 2023 – March 2024

- Worked in the implementation of an autonomous navigation system for mobile robots from concept to deployment.
- Took ownership of navigation and motion control components in real robotic platforms.
- Coordinated integration with a fleet management system enabling multi-robot operation.
- Supported testing, tuning, and validation in simulation and real environments.

**Technologies:** ROS / ROS 2, C++, Python, Gazebo

### R&D Engineer — TUPL

September 2022 – January 2023

- Developed computer vision solutions using neural networks for industrial applications.
- Built deployment pipelines using **Docker** and Python-based services.
- Participated in applied R&D projects from prototyping to validation.

**Technologies:** Python, OpenCV, Neural Networks, Docker

### Internship Student — RoboRescue UMA

November 2021 – July 2022

- Worked on autonomous systems for rescue rovers within the Autonomy Department.

- Contributed to navigation and perception components for mobile robots.
- Gained hands-on experience with robotics research and experimental platforms.

**Technologies:** ROS, Python, C++

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## Education

### BSc in Electronics, Robotics and Mechatronics Engineering

University of Málaga / University of Seville  
2018 – 2022

Specialization in Robotics and Automation

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## Technical Skills

**Robotics:** ROS 2, Nav2, Mobile Robots, Autonomous Navigation

**Programming:** C++, Python

**Simulation:** Gazebo

**Tools:** Docker, Git, CMake, Bazel

**Algorithms:** Navigation, Localization, Coverage Path Planning

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## Leadership & Collaboration Skills

- Technical ownership
  - Cross-team collaboration
  - Requirements understanding
  - Problem decomposition
  - Communication with technical and non-technical stakeholders
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## Languages

- Spanish: Native
- English: Professional working proficiency (C1)