Pablo Morilla Cabello

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Education

University of Málaga *August 2019 – February 2024*
Degree in Robotics, electronics, and mechatronics

- Degree's WebPage
- GPA: 7.31/10
- **Coursework:** Mathematics, Robotics, Automatic Control Fundamentals, Computer base Control, Programming, Computer Vision, Electronics, and Mechanics.

Högskolan i Skövde (ERASMUS) *August 2022 – June 2023*
BS in Industrial Engineering

- Bachelor's WebPage
- GPA: N/A
- **Coursework:** Industrial Control Engineering, Industrial Robitcs and Offline Programming, Logistics Simulation.

University West *August 2025 – Present*
MS in AI and automation

- Master's WebPage
- GPA: N/A
- **Coursework:** Introduction to AI, Mechatronics for Automation, Programing for Automation.

Experience

Research Assistant *ASSAR Industrial Innovation Arena* *Skövde, Sweden*
June 2023 - August 2023

- Planned a summer project within a larger research group.
- Developed and integrated dedicated software into robotic and automation systems.
- Simulated a 3D industrial robotic system.
- Contributed to writing and presenting a published paper after the project.

Automation Engineer *Elektroautomatik* *Skövde, Sweden*
April 2024 - Present

- Worked in a multidisciplinary team, specializing in industrial robot programming and PLC automation.
- Developed standards to optimize workflows and researched emerging technologies.
- Gained extensive hands-on experience in automation and robotics.
- Provided on-site support to international companies like Volvo Group, SCANIA, and Hitachi.

Publications

Exploring the Synergies of Modularization, Interface Standardization, and Service-Orientation in Production System Simulation April 2024

Martin Birtic, ***Pablo Morilla Cabello***, Ángel Muñóz, Anna Syberfeldt

DOI: 10.3233/ATDE240164

Projects

AGV Digital Twin *(Project Video)* *github.com/repo*

- This project aims to develop a solution for integrating various software systems using OPC UA standards. It focuses on simulating the functionality of an AGV in a virtual environment, incorporating control capabilities for path planning and collision avoidance while providing a user-friendly remote control interface.
- Tools Used: C, JavaScript, MongoDB, NodeRed, RobotSudio, Codesys, OPC-UA.

Mobile Robotic Lab *(Project Video)* *github.com/repo*

- Robot project utilizing a PIERO mobile robot, equipped with sensors and a drive system. Programmed using an Arduino Mega in MATLAB, enabling the implementation of advanced control strategies, including path planning and collision avoidance.
- Tools Used: Matlab, SimuLink, Arduino.

ULTRA-ADDIN *(Project Video)* *github.com/repo*

- Development of an ADD-IN for RobotStudio software to create an interface that ensures modularization and interface standardization while maintaining a user-friendly system. This enhances the approach to exploring the synergies between modularization, interface standardization, and service-orientation in production system simulation.
- Tools Used: C#, RobotStudio, Python.

Technologies

Coding Languages: C++, C, Python, Java, C#, JavaScript, MongoDB, RapidCode, Arduino, MATLAB, Latex.

Technologies: Robotstudio, MATLAB, NodeRED, MQTT, Xinilnx, Statgraphics, AutoCAD.

Languages

Spanish (Native) / English (Fluent) / Swedish (Basic, currently studying at SFI).