# Javier López Iniesta Díaz del Campo

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# Telecommunications & Robotics Engineer

Telecommunications Engineer specialized in electronic systems and robotics, with broad knowledge in Deep Learning and AI. After 6 years of continuous formation, I am interested in growing professionally in the working world to be able to put into practice all the knowledge I already have, specifically I am quite interested in the field of mobile robotics.

# Education

#### Kungliga Tekniska Högskolan

2022 - 2024

Master of Science in Electrical Engineering

Stockholm, Sweden

- Specialization of Systems, Control and Robotics.
- Analysis, design and control of robots, autonomous vehicles, and other complex technical systems using tools such as SLAM or ROS2.
- Learning systematic modelling methods, as well as the digital implementation of analog controllers like the PID.
- Knowledge and use of Artificial Intelligence (AI) and different Machine Learning techniques.

#### Universidad Politécnica de Madrid

2021 - 2024

Master of Science in Telecommunication Engineering

Madrid, Spain

- Selected by the School of Electrical Engineering and Computer Science as one of 12 worldwide double degree students for an 18-month exchange at KTH Royal Institute of Technology for the great academic background.
- Enabling Master's Degree to be qualified to practise the profession of Telecommunications Engineering.
- Extensive knowledge in statistical signal processing, as well as different radio access technologies.

## Universidad Politécnica de Madrid

2017 - 2021

 $Bachelor\ of\ Engineering\ in\ Telecommunication\ Technologies\ and\ Services\ Engineering$ 

Madrid, Spain

GPA: 3.64/4, Top 8% out of 300 peers.

- Major in Electronic Systems. Ranked 2nd out of 40 students in the major.
- Recognized in 2021 among 2090 students with a scholarship for Academic Excellence by the Community of Madrid as a consequence of excellent academic results.
- 19 subjects including the thesis with the highest grade, including 7 of them with honors.

## Experience

#### Electronic Engineering Department Collaboration Scholarship

2021 - 2022

Student researcher, Universidad Politécnica de Madrid

Madrid, Spain

- Applied inertial signal processing techniques to process smartphone signals with unstable sampling rates.
- Improved a classifier of activity types based on window length.
- $\bullet$  Designed and implemented a human motion modelling and recognition system.
- Utilized TensorFlow with Keras in Python to develop one of the most widely used Deep Learning techniques nowadays, Convolutional Neural Networks. Whereas, for data processing I used Matlab in which I have a good knowledge of it.

## **Projects**

- Worked on a team project to simulate in Gazebo a TIAGo robot using a high-level state machine (SM) and a Behavior Tree, using several on-board sensors and a manipulator arm.
- Deployment of a set of new cutting-edge technologies to improve connectivity and IoT services in a region of Spain, working together with a team of 15 people.
- Designed and implemented for my bachelor thesis a classifier of types of human movements using inertial sensors using Deep Learning.
- Implemented an audio recording, processing and playback system using an FPGA, using the VHDL language and making use of the Vivado workflow.

#### Additional Information

Languages: Spanish - Native — English - Advanced, C1 (TOEFL iBT) — Swedish - Basic, A2

- Strong knowledge of LATEX, as well as Microsoft Office Suite.
- Summer Course "Data Science and Engineering in Defence and Security: The Challenges of Big Data in New Conflict Scenarios" (2022).
- I have taken several courses at the Universidad Politecnica de Madrid such as: "Altium" (2020), "Picosatellites and Amateur Radio satellites" (2019) or "Digital Photography" (2018).
- Good public speaking and non-verbal communication skills due to a formation in "Usa La Palabra Formación".
- Activities and hobbies: photography, sports, nature and experimental cooking.