

MANUEL RODRÍGUEZ VILLEGAS

Madrid, Spain | +34 640 18 42 47 | manuel.rodriguezvillagas09@gmail.com

PROFILE

MSc student in Artificial Intelligence with a BSc in Mathematical Engineering and Artificial Intelligence. International experience (research and industry) in Machine Learning, Computer Vision, and Physics-informed Neural Networks (PINNs). Strong team collaborator, energetic, committed, and eager to learn.

EDUCATION

Comillas Pontifical University, ETSI ICAI <i>MSc in Artificial Intelligence</i> – Class Representative. Focused on Deep Generative Models, Differential Geometry & Calculus, MLOps, Deep RL.	Madrid, Spain Sep 2025 – 2026
Cornell University <i>Exchange Student - Electrical & Computer Engineering</i> – Writer for Cornell Healthcare Review (AI applications in the healthcare industry).	Ithaca, NY, USA Jan – May 2025
Comillas Pontifical University, ETSI ICAI <i>BSc in Mathematical Engineering and AI; GPA: 8.75/10</i> – Winner of UNIJES Social Tech Challenge (AI-powered autonomous wheelchair).	Madrid, Spain 2021 – 2025

EXPERIENCE

Comillas Pontifical University <i>LLM Research Assistant</i> – Explored the capabilities and applications of the latest open-source Large Language Models (LLMs).	Madrid, Spain Sep 2025 – Apr 2026
Azzulei Technologies <i>Computer Vision Intern</i> – Automated camera control in sports events by developing a real-time Multi-Object Tracking system using YOLO.	Madrid, Spain Jun – Aug 2025
Imperial College London <i>Research Assistant</i> – Robustly reproduced complex dynamic systems using Neural ODEs and Physics-informed Neural Networks.	Remote (London, UK) Jun – Aug 2024
Endesa <i>Energy Data Analyst Intern</i> – Estimated daily Iberian ancillary services costs with >90% accuracy using regression and MLP techniques.	Madrid, Spain Jun – Aug 2023

SELECTED PROJECT

Bachelor Thesis: Visual Topological SLAM using Deep Learning Techniques – Implemented a visual SLAM system in ROS2, integrating vision foundation models (CNN, AutoEncoder) with NLP for voice-controlled indoor navigation: https://github.com/rdgzmanuel/visual_topological_slam	2025
--	------

SKILLS

Programming: Python (advanced), R, C#, SQL
Tools: PyTorch, ROS 2, OpenCV, MATLAB
AI & ML: Deep Learning, Computer Vision, Natural Language Processing, Reinforcement Learning
Mathematics: Linear Algebra, Analysis, Optimization, Dynamical Systems

LANGUAGES

Spanish (Native) | English (Advanced, TOEFL iBT 109/120) | French (Basic) | German (Learning)

HONORS & AWARDS

Baccalaureate Honorific Mention <i>2nd highest GPA in Community of Madrid</i>	2021
Academic Excellence Scholarship <i>Top-scoring students across Community of Madrid</i>	2021, 2023, 2024
Winner – UNIJES Social Tech Challenge <i>Voice-controlled wheelchair project</i>	2024