

MANUEL RODRÍGUEZ VILLEGAS

Madrid, Spain | +34 640 18 42 47 | <https://rdgzmanuel.github.io>

PROFILE

MSc student in Advanced Artificial Intelligence with a BSc in Mathematical Engineering and Artificial Intelligence. International experience (research and industry) in Machine Learning, Computer Vision, and Robotics. Strong team collaborator, energetic, committed, and eager to learn.

EDUCATION

Comillas Pontifical University, ETSI ICAI <i>MSc in Advanced Artificial Intelligence</i> – Class Representative. Winner of the X Hackathon of Smart Industry.	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
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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

Hackathon Winner <i>Developed the winning project in the X Hackathon of Smart Industry, featuring Kearney and CAF.</i>	2025
UNIJES Social Tech Challenge Winner <i>Voice-controlled wheelchair project</i>	2024
Academic Excellence Scholarship <i>Top-scoring students across Community of Madrid</i>	2021, 2023, 2024
Baccalaureate Honorific Mention <i>2nd highest GPA in Community of Madrid</i>	2021