

Emilio José Manchado Barquero

Telematics Engineer

Education

UC3M - Double Master's Degree in Telecommunication Engineering and Internet of Things (IoT): Applied Technologies

Universidad Carlos III (UC3M) | 2025–Present (currently in 2nd semester)

Specializing in emerging technologies, intelligent networks, and next-generation communication systems.

Bachelor's Degree in Telematics Engineering

Universidad Carlos III (UC3M)

Built a strong foundation in telecommunications, computer networks, software engineering, and problem-solving. Developed programming experience in C, Python, and Java, and worked with Cisco routers, virtualization, and simulation tools (Matlab), as well as GitHub and Linux-based environments.

Professional Experience

Junior Project Engineer Intern | Sistemas y Redes Telemáticas SIRE S.L.

- Designed and executed unit tests in **C** using **VectorCast** to support compliance with the European railway software safety standard **EN 50128**.
- Documented test cases to ensure end-to-end traceability and audit readiness.
- Performed functional code reviews aligned with **SIL** safety requirements.
- Supported requirements and project documentation workflows using **DOORS**.

Projects

Development of a Control Plane Architecture for 6G Networks in a WiFi Domain

TFG / PREDICT-6G control plane (UC3M)

- Developed a practical module that automates dynamic queue configuration in WiFi within the PREDICT-6G control plane.
- Focused on enabling scalable, reliable, and secure telecommunication solutions for future digital infrastructures.

Skills & Additional Information

- **Programming:** C, Python, Java, SQL.
- **Tools:** VectorCast, DOORS, Git/GitHub, Linux environments, Eclipse, Visual Studio Code, Matlab.
- **Networking & systems:** Cisco routers, virtualization, network protocols and architectures.

Languages

- English: B2 (Escuela Oficial de Idiomas, 2022).