

# Subject: Internship Proposal

ID	PTI_La Rosa Francesco_22/09/2025 9.11.24
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#### **Project Supervisor**

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Department	01/10/2025
Laboratory	FCRLAB
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### **Project Co-Supervisor**

Surname	Dell'Acqua
Name	Pierluigi
Job Position	Dottorando
Department	MIFT



planned activities include:

#### University of Messina, Italy Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences

Laboratory	FCRLAB
E-mail	pidellacqua@unime.it
Phone number	

#### **Project details**

Title	Recommendation Systems Based on Public Datasets and Large Language Models
Detailed description: This project focuses on the design and development of recommendation systems leveraging public datasets and integrating Large Language Models (LLMs). The aim is to explore hybrid methodologies that combine traditional	

analysis of public datasets (e.g., MovieLens, Amazon Reviews, Last.fm), implementation of classical and deep learning–based recommendation algorithms, integration of LLMs to generate explanations, personalized recommendations, and

recommendation techniques (collaborative filtering, content-based, hybrid) with the capabilities of LLMs, which can interpret and enrich the user's information context. The

evaluate suggestion quality, experimentation with evaluation metrics (precision, recall, NDCG, MRR).

The project provides practical skills in recommendation systems, real-world dataset usage, and integration with next-generation language models.

Duration (month – max 12)	12
Duration (hours)	undefined
Open positions	3



## University of Messina, Italy Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences

## Internship Skills

Technical requirements: Possesses basic knowledge of C and Python programming languages, algorithms, and data structures.	
Other skills	Willingness and aptitude for teamwork. Strong commitment and availability to attend the facilities of the FCRLab.