

Name of the MSC Fellow: Michele Cafagna

Nationality: Italian

Host organisation: University of Malta

Country of the Host: Malta

Project Acronym: NL4XAI

Project start and end date: October 2019 - October 2023

Type of MSC action, H2020: ITN



Your story:

Project objectives and research field:

The project focuses on multimodal grounding and model transparency in deep learning architectures for generating language from visual data with a special focus on the explainability aspect. Aims of the project are designing both new datasets and new models based on an in-depth exploration of optimal visual features for Natural Language generation tasks.

Tell us why your topic is important and/ or how it brings to advancement in your research field:

This research aims to address some bottlenecks in vision and language under a new standpoint which sees the bias as a possible resource to exploit. The study will be leveraging on cognitive and social known phenomena which inherently affect our systems. It will be approaching such issues with awareness of such phenomena aiming to increase the comprehension of these models making them more reliable and performing. Vision and Natural Language processing communities would directly benefit from the output of this research.

What are the benefits of participating in an MSC action?

The project enables the possibility to work with some of the most prominent researchers and professors in the field. It's designed to allow to build and be part of a network of researchers coming from important European academic institutions. Moreover, it provides an intense, high-level both academic and industrial training programme, enhanced by a continuous collaboration between different academic institutions.

The output of the study would bring advantage to many scientific fields with high social impact, since it would pave the way to new ways to study and exploit different sensory information in multimodal systems, like robotics and autonomous driving where the grounding of driving controls in the sensory data is a matter of public safety. Outputs of this research would enable further possible industrial application where the model's trustworthiness is a critical factor and the lack of grounding is harmful like for instance in healthcare and medical applications.

Did you encounter any challenges during application/ implementation and did you get any help?

I didn't find any particular challenges in the application process.

Why did you choose a widening country as a Host? What was the reason that convinced you? What is making you professionally happy here?

The main reason that drove me to apply was the project itself. The possibility to be enrolled in a Ph.D. programme abroad and to collaborate and work with people from various institutions in Europe was certainly further motivation. The University of Malta and Malta itself are international environments which expose you to many different cultures, therefore, opening your mind and providing you with an exciting and challenging experience.

Would you recommend others to apply? What useful advice/ tips can you give them?

I would strongly recommend applying for MSC fellowships since they allow you to sprint the development of your technical and soft skills in your field and provide an unmissable possibility to meet and work with people from different backgrounds who help you to expand your horizon and your personal growth.