NDTonAir Bio - Luca Pecoriello

I am an engineer and a researcher who is very fascinated by systems' integration, especially when it involves multidisciplinary aspects and goals.

My background is very international and mostly Civil-Engineering oriented. In fact, after achieving my Bachelor's degree in Civil Engineering, at the Polytechnic of Turin (Italy), I obtained a Master Degree in Civil Engineering and Management at the University of Twente (The Netherlands).

I firstly approached non-destructive technologies during my studies at the University of Twente.
Back then, in 2015, I had the opportunity to develop an autonomous assignment aimed at contributing to the project called "Throw in the i-drone", in which the University of Twente was involved.
This research project focussed on the usage of civilian drones equipped with an infrared camera in the construction industry and was an opportunity to either conduct independent research or further increase my interest in non-destructive testing technologies, especially when comprising multidisciplinary.

During my M.Sc. project conducted at the Multi Scale Mechanics group of the University of Twente, I gained a strong knowledge of the principles and applications of the Discrete Element Method of particle simulation (DEM). My project focussed on the modelling of mineral dissolution of silica- ($SiO2$) and carbonate- ($CaCO3$) -rich composites, undergoing man-made carbon storage.
Since a DEM-based methodology has not been invented yet, I constructed my own.

While developing my research, I understood the economical and industrial importance of reconstructing the subsurface of any material at a low scale of observation.

After my studies, I desired having an experience as software application developer, making use of some coding skills I gained during my master.
The main drive for this decision, is that the majority of nowadays industrial processes is somehow controlled by software, mostly outsourced and developed by third-parties.
Therefore, this working experience has not only helped me to become a more structured programmer, but also a future point of reference for determining software requirements for engineering purposes.

Besides working, I have a lot of hobbies, mostly sports and playing music. I also like learning new languages and currently I can speak Italian, English, and Spanish at professional level, while French and Dutch at a more informal level.

With kind regards.

Luca Pecoriello