

Feedback Lucas Mesdon

I will organize this feedback in two parts, in the first part I will make a general feedback on the whole period of the internship. Then, I will make a week-by-week feedback to underline the different points outlined in the general review.

Avis général :

The partnership between Latitudes and the ENSEA was for me an incredible and unexpected opportunity in the current health situation. Indeed, I was able to find an internship in the field I wanted, i.e. image processing and artificial intelligence. It is in this context that I arrived at Fichta. I was pleasantly surprised when talking with Vincent for the first time to discover a young and international team through Mahavir. I really liked this aspect, the fact of working with a young team and with less traditional managerial techniques allowed me to blossom fully in this internship. For example, the fact that I don't have a precise schedule is something that I really appreciated and that suits me, in fact it allows you to organize your day as you wish without having to take your breaks at the time planned for this purpose. I also liked the international side of the team, apart from the fact that it allowed me to work on my English, I loved working with Mahavir and I particularly appreciated his didactic side and his desire to train us rather than to "use" us, for example his idea of setting up a daily report was also very useful for us.

Now as for possible improvements for this internship, I think that it would be better to directly set up two meetings per week, which would allow us to use one week of the image processing part for the deep learning part. Also, I think that removing the transition week between image processing and deep learning can be useful, devoting one or two days maximum to the understanding of CNNs and Siamese Network is more than enough. However, I would like to thank you for this internship which was more than enriching and pleasant to live on the trainee side.

Feedback hebdomadaire :

- 1st week :

Week of discovery of Fichta, what has already been done, what are the objectives and how will take place this internship, meeting with Mahavir. At the end of the week we started to get interested in image processing. This week has been useful and allowed me to understand how these two months of training will be articulated.

- **2nd week :**

The objective of the week was to look at the different algorithms for feature extraction by template matching and the background subtractor in order to find the regions of change. This week was very useful, as it allowed us to reuse python by coding different algorithms and to become familiar with different image processing techniques.

It was during this week that we implemented the daily report, which was very beneficial.

- **3rd week :**

During this week we had to test the geometric transformations and test the TSUNAMI dataset on our algorithms. This week was the least useful from an image processing point of view in my opinion, I found it was the least related to Ficha and the internship, although it allowed me to discover things about geometric transformations.

- **4th week :**

It's the transition week between image processing and deep learning, for me this week could have been shortened to two days, since compared to others it was the least busy week of the internship. (Having only one meeting per week didn't necessarily help).

- **5th week :**

During this week we started to work on the SceneChangeDet repository, this week was very rewarding, it was an opportunity to learn how to use github, to analyze a code and debug it to update it.

- **6th week (move to two meetings a week):**

During this week we continued to work on the SceneChangeDet repository, continuing to debug the code, and it was during this week that I realized that we were stuck due to module versioning issues.

- **7th week :**

Week less interesting because I spent my time testing hundreds of module combinations in brute force, due to a lack of knowledge and precision on the code's git. However, it allowed me to realize the difficulties that version differences can cause.

- **8th week :**

This week is dedicated to the retrospective of the internship, starting with this feedback and ending with the preparation of the presentation in front of Latitudes. This week is really nice because it allows us to take a step back on the work done and on what could have been done better.