Coursework: Participating in a AICrowd challenge Crowdsourcing and AI

Michael Mosimann

<u>Université de Genève</u>

<u>Faculté des Sciences</u>

Département d'informatique

At the beginnings, there was not much discussion between participants in the discussion tabs of the AI Blitz challenges. It was mostly bug reports, like about submission limits.

So far, it seems that the participants aren't discussing with each others, only one has giving some help to possibly improve the score, at this point of writing(14.05.2021). The hint is to sort by index, as the resulting file isn't sorted, and it has improved the score of the file. The user is called Victorkras2008.

So far, i have posted only the baseline as submissions to test the submission process and to see what score i need to improve on. I have been working on the code and looking around the web to have some ideas, and test some codes to see how it might improve the AI.

I had some problems with installing some libraries, and had some memory problems as the program took a lot of memory.

I have tried to work on smoke elimination, but also tried to do the speed detection, as I have been stuck and haven't made any result worth submitting.

For the smoke elimination, a generative model seems to be the model to use to transform the images with some smoke into images without any smoke.

I had some ram memory problems, and executing the code with Colab, seems to work.

Grayscaling doesn't seem to improve, but worsen the result, in the speed detection problem.

At this time of writing this line, (16.05.2021), there is 123 participants and 12 teams.

The squeezenet1_1 gives very bad results for the speed recognition, whereas the resnet18 improves the score a lot. It shows how some models can solve more efficiently some problems compared to others models, whereas with another problem, the same model could do poorly.

The resnet34 improves a little bit the score, but the major downside is that it's take a lot of time to train/compute it, due to the complexity of the model.

Looking at the leaderboard, it's interesting to note that the person holding the first place, holds the first place on most of all the challenges in the blitz, and holds the second place on the others. It does shows that it attracts some good AI programmers.

The participants are really good at improving the score. With these observations, it leads me to think that most participants are more in a competitive state than a helpful mindset, which the cause might be to win the reward.

I checked the AIcrowd discord to see if the participants used this to help each other. For this challenge, the AIBlitz room was used to complain about the baseline giving a perfect score for the first challenge, and so far, it seems the participant doesn't help each other for this, although the discussions in the some of the other rooms show that the participants do chat with each others.