[Face detection]

[Activity Report No.4]

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[In this report I will present you how I have almost successfully trained my model for detecting faces.Also I will speak about the issues I have encountered so far.]

[Face Detection]

[Activity Report]

What's new since last time?

Since last time I have struggled to trained my model on the WIDER dataset, which I have described last time. I have hot a lot of troubles training it right, but until I figure it out, I have started working on deploying and benchmarking the model.

Issues training?

I have not succeded to train my model to converge (do good detections). I have struggled a lot for feeding the images into correct format(normalize, standardize the images), I have also struggled with tunning the parameters for learning, such as learning rate, and the Adam optimizer, parameters(alpha, betta, gamma), but at the end this seems to ve working.

Deploying my model

Even though the model is not fully trained, I can work on how I will use it in the future. So, I have managed to use Tensorrt to quantize my model and improve the inference time with a factor of 6 from the original Keras model. I have also reduce the weights memory footprint from 30 MB to around 4 MB which is a lot better.

Benchmark

In order to do a detection (until now, unsuccessfully), the algorithm takes about ~0.01 seconds (over 100 FPS).

[Project Roadmap]