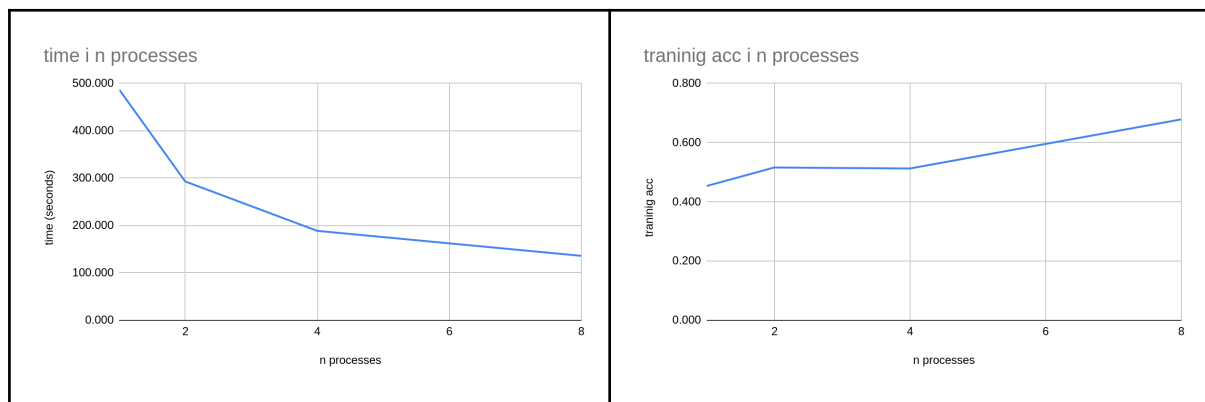


Assignment 3 Report

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For this assignment we had to extend the work done in the previous assignment and parallelize the data using MPI processes. For that we have distributed the dataset between all the processes, each process trains the model with their own section of the dataset and at the end of the epoch the we reduce all the gradients and perform the parameters update.

n processes	1	2	4	8
training acc	0.453	0.516	0.512	0.678
validation acc	0.471	0.532	0.496	0.512
time (s)	486.500	292.742	188.465	135.736



From the results we can clearly see how the computation time for the model gets reduced as the number of mpi processes increases, on the other hand even though the validation accuracies stay in a similar position we might be seeing that the model is starting to overfit to the training data as the number of processes.