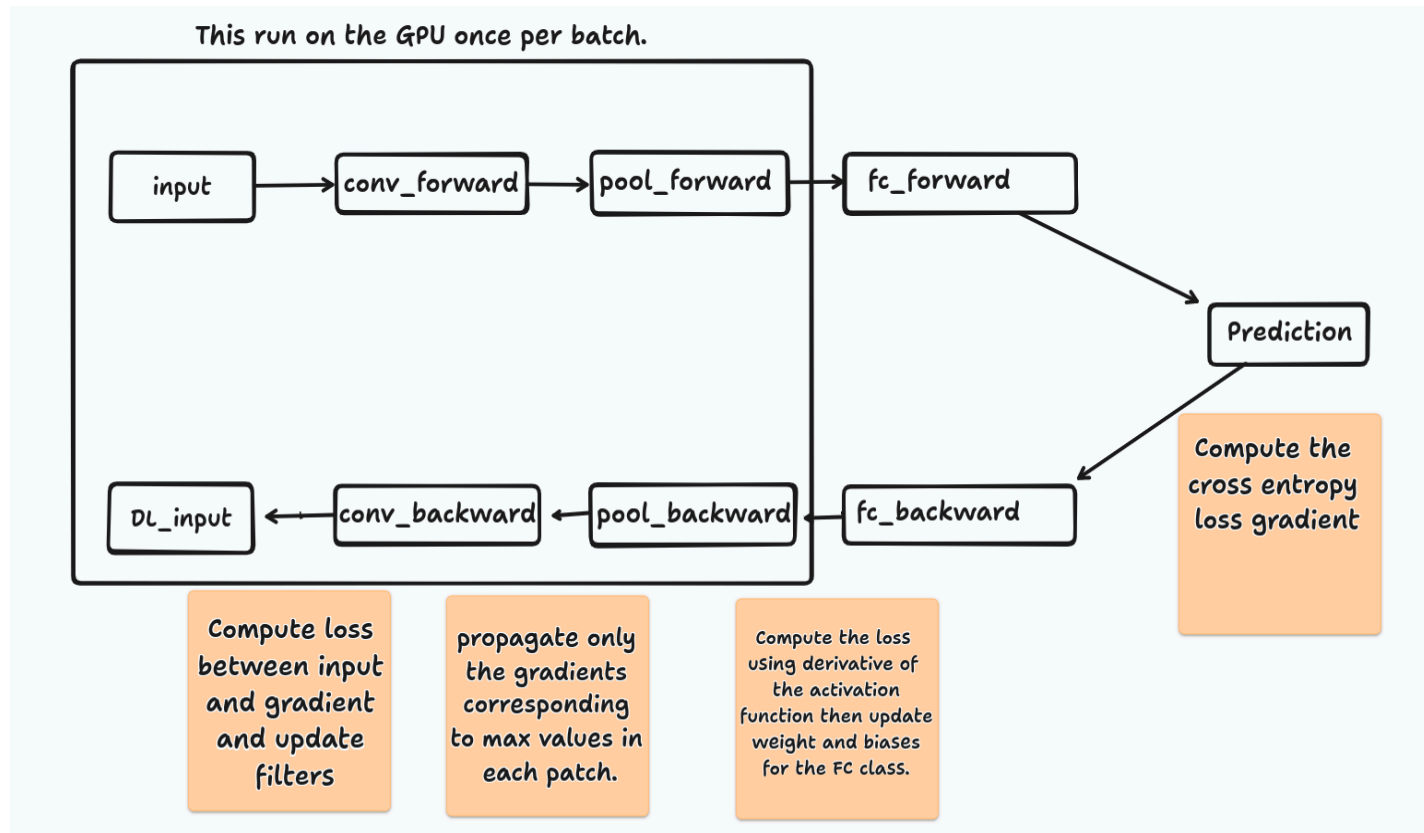


Structure



Comparison

These hyper-parameters were used:

- Epoch = 5
- Images = 60 000 size = (28x28)
- Filters = 1 size = (3x3)
- Learning_rate = 0.01

	Batch_size = 32	Batch_size = 64	Batch_size = 128
Custom (GPU)	39s – 77%	29s - 76%	24s - 74%
Custom(CPU)	1800s - 88%	Same	Same
Tensorflow(CPU)	90s - 90%	79s - 91%	60s - 90%
Tensorflow(GPU)	21s - 91%	13s - 92%	7s - 91%

* Custom (CPU) does not use any batch.

Accuracy is less in Custom (GPU) because of the backward pass optimization. My own custom weight update function is not as good as SGD or ADAM optimizers.