

note of experiment in week8

zxp

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1 environment

cpu: Intel(R) Xeon(R) Gold 6330 CPU @ 2.00GHz (56 cores were applied)

gpu: rtx3090(a piece was applied)

System: CentOS7

Compiler: 9.5

2 Experiment

Tested the convolution implementation of im2col written last week. The im2col transformation is not included, and only the time spent by cublas is calculated. Memory was tested for two versions of im2col and all batchs memory was computed at once without cublas.

2.1 Analysis

Calculating cublas alone is definitely faster than the convolution in the cublas version of libtorch, many layers are nearly twice as fast, and the im2col transformation takes quite a bit of time. In memory, the im2col transform in libtorch does not simply compute all batches at once or one batch at a time, and the strategy is unknown