note of experiment in week7

zxp

October 26, 2024

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

Found and fixed last week's bug, which was due to a low memory request on the cpu, causing it to not fit when moving from the GPU to the CPU. There is now a self-written im2col transform on the GPU, available in two versions, compute all batches at once and compute one batch at a time. And test that memory alignment can be achieved correctly when applying memory.

I tested the gflops of im2col written by myself, the performance was worse than its pytorch, and calculated all batches of versions at once in some layers (such as the conv3) it could not run. See the txt for speeds

2.1 Analysis

Write their own performance is very poor, do not know pythorch to do what optimization, can only be used to see the memory usage