note of experiment in week20

zxp

January 24, 2025

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

This week, we measured the glops and memory usage data of different versions of im2col in different batches, and also measured the memory usage of the mjx compilation libtorch comment im2col and GEMM at batch=512. There is also the memory usage of im2win optimized by Ma Jixiang (excluding conv4, which is not optimized at present). See the annex for details.

libtorch's im2col memory usage is more than what I wrote, from the code, libtorch only applies for one batch of im2col matrix size memory at a time, I think libtorch memory management has additional overhead, will apply for more memory.