

Milestone2:

Team: coolda

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- All kernels that collectively consume more than 90% of the program time.

32.40% 35.357ms 20 1.7679ms 1.0880us 33.031ms [CUDA memcpy HtoD]

18.39% 20.071ms 1 20.071ms 20.071ms 20.071ms

volta_scudnn_128x64_relu_interior_nn_v1

16.21% 17.693ms 4 4.4232ms 4.3519ms 4.6367ms volta_gcgemm_64x32_nt

8.72% 9.5153ms 4 2.3788ms 1.9783ms 3.1088ms void fft2d_c2r_32x32<float, bool=0, bool=0, unsigned int=0, bool=0, bool=0>(float*, float2 const *, int, int, int, int, int, int, int, int, float, float, cudnn::reduced_divisor, bool, float*, float*, int2, int, int)

7.21% 7.8714ms 1 7.8714ms 7.8714ms 7.8714ms volta_sgemm_128x128_tn

- All CUDA API calls that collectively consume more than 90% of the program time.

41.80% 3.17683s 22 144.40ms 14.638us 1.62690s cudaStreamCreateWithFlags

33.89% 2.57551s 24 107.31ms 56.562us 2.57005s cudaMemGetInfo

21.02% 1.59732s 19 84.069ms 1.2180us 429.36ms cudaFree

- Explanation of the difference between kernels and API calls
Kernels are device-level codes, running parallel in SM, while API calls are host-to-device communication codes.
- output of rai running MXNet on the CPU
'accuracy': 0.8154
- List program run time
9.4s
- output of rai running MXNet on the GPU
'accuracy': 0.8154
- List program run time
4.52s

- CPU program execution time
76.5s

- Op Times

	1.1	2.1 100	2.1 1000	2.1 10000
Op1 time	11.640115	0.158422	1.098643	10.917119
Op2 time	62.344837	0.636590	5.913035	59.204878

MileStone3:

Memory copy host to device: 31.82ms

Forward kernel: 123.43ms

Map Plan LargeKernel: 16.74ms

Memory copy device to host: 6.88μs

Volta segmentation: 128 * 128 time: 7.83ms

Epoch 1 Op time: 0.030191 s.

Epoch 2 Op time: 0.093297 s.