

Time report

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Here is the breakdown of the execution times and speed ups of the matrix multiplication made in CPU, GPU and GPU with TILING. A total of 60 executions were carried out. The time is measured in ms.

	8x8		
	CPU	GPU	GPU TILES
1	58105.0508	414.827698	115.314133
2	57275.8555	451.005249	113.62249
3	57109.8477	443.29248	113.849335
4	56823.9297	444.679993	113.550308
5	57274.0977	443.973541	114.797424
6	57057.168	439.163269	113.536346
7	57381.832	439.301453	113.971558
8	56856.0234	442.185425	115.32486
9	56663.7656	443.988617	114.204254
10	56810.0039	452.864594	115.724152
11	57056.0938	447.797211	113.564323
12	57158.3594	452.537628	134.94931
13	56800.5586	434.201935	113.806099
14	56797.6367	443.94519	113.671844
15	56965.5156	453.764282	114.187706
16	57275.9453	440.867432	113.91684
17	56472.9258	450.911255	114.022514
18	56900.7266	445.540466	113.741608
19	57116.9453	434.6362	113.562309
20	56688.3711	430.680725	114.320595

Average 57029.5326 442.508232 115.1819

Speed up 3.8418209

	16x16		
	CPU	GPU	GPU TILES
1	56737.9492	799.204102	67.211311
2	56592.6602	795.932922	68.911011
3	56815.3633	775.056213	67.434227
4	56745.3008	778.081421	67.146194
5	57238.5391	777.899475	67.338272
6	56952.9102	771.847534	67.521141
7	56677.9258	783.363159	69.127464
8	57000.0977	769.66156	67.376534
9	56985.7344	787.213318	69.309525
10	56634.875	774.999451	67.296463
11	57222.375	776.953979	67.134995
12	57176.6758	793.285767	66.870522
13	59089.5898	785.361206	67.315529
14	56709.1172	786.981689	67.513077
15	57207.4492	751.465027	67.065033
16	57727.6953	774.19751	67.316238
17	56464.5625	770.933411	66.092667
18	56622.3867	745.605164	67.659729
19	56926.6055	771.967957	67.512459
20	56992.4492	792.14386	66.038246

Average 57026.0131 778.107736 67.4595319

	Speed up 11.5344372		
	32x32		
	CPU	GPU	GPU TILES
1	56678.3477	1466.69727	92.36657
2	56943.5117	1449.30469	94.405602
3	56923.2422	1470.06519	94.046082
4	56541.1484	1465.33606	92.585289
5	57011.2227	1472.97986	94.498695
6	56908.4102	1458.89148	93.966736
7	56835.3008	1472.61707	94.201691
8	56761.7422	1459.0072	93.506645
9	56601.0898	1458.37231	94.651108
10	57257.9336	1447.98035	94.668114
11	56789.1133	1473.42603	94.62664
12	57324.2344	1447.65295	93.868378
13	56961.125	1471.02905	94.54969
14	57163.4414	1472.6355	94.214264

15	56589.1992	1462.29004	94.228188
16	56596.5391	1454.67664	93.94825
17	56828.0391	1417.90015	94.085236
18	56725.3359	1467.09326	94.210533
19	56769.7227	1456.51978	94.065758
20	56842.8828	1459.20215	94.619774

Average 56852.5791 1460.18385 94.0656622

Speed up 15.5230274