

Technical Report

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The following table compares execution times for the multiplication of two 2000x2000 matrices filled with random values. This multiplication was carried out using three distinct implementations; with CPU, GPU, and GPU with tiling. The average time was calculated between 20 attempts of each variation.

	CPU	GPU	8x8 GPU w/Tiling	16x16 GPU w/Tiling	32x32 GPU w/Tiling
Average time (ms)	70943.15425	979.26709	604.96017	304.12719	277.35482
Speedup vs CPU	N/A	72.4	117.3	233.3	255.8
Speedup vs GPU	N/A	N/A	1.6	3.2	3.5