CS 475 – Parallel Programming

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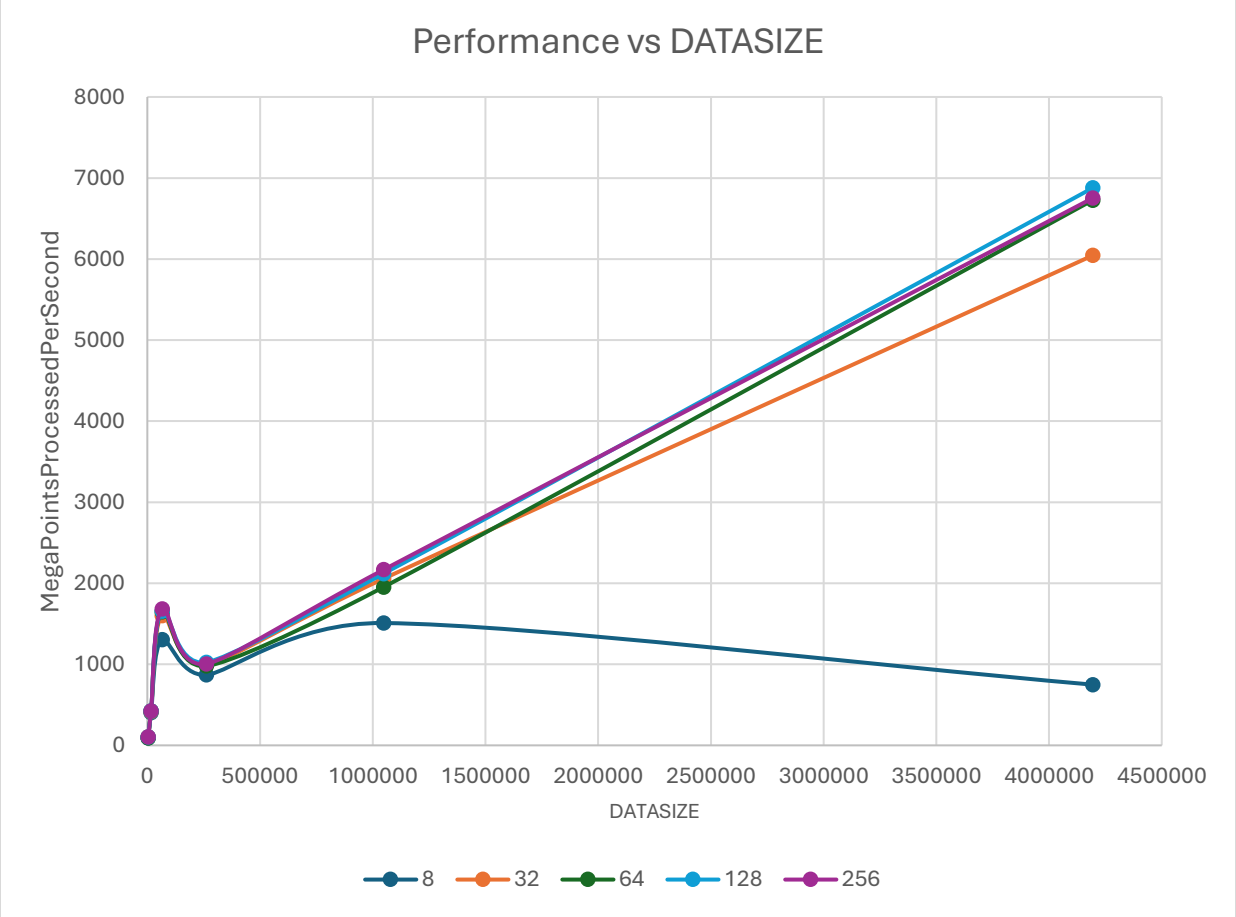
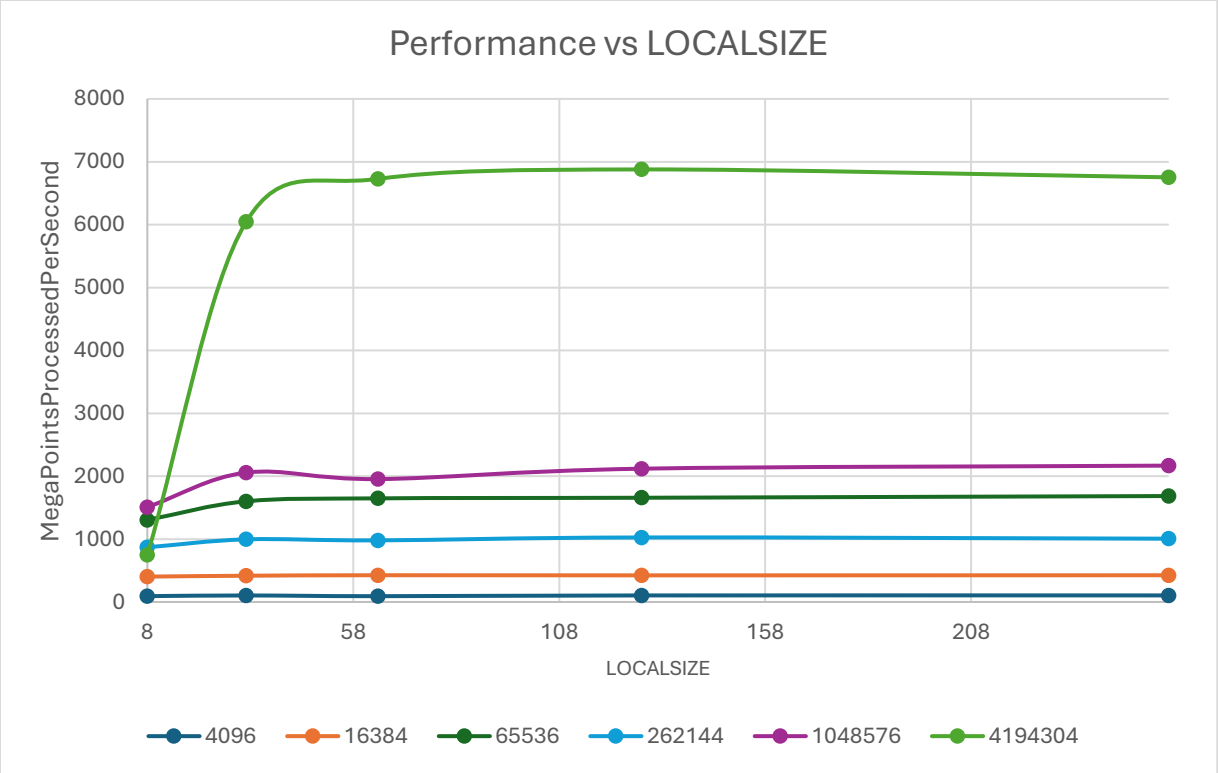
Project #6 - OpenCL Linear Regression

	8	32	64	128	256
4096	92.77	103.55	92.15	104	104.28
16384	403.39	417.55	425.37	423.1	425.02
65536	1305.13	1600.56	1647.71	1657.45	1684.55
262144	869.98	995.92	979.63	1025.94	1006.49
1048576	1509.36	2057.28	1954.11	2119.55	2168.11
4194304	748.88	6045.2	6727.73	6878.55	6752.92





- Ran on OSU DGX Systems using *sbatch* slurm command
- **M = 5.0** and **B = 7.0** in Line Equation y = M*x + B.
- Graph on Performance vs DATASIZE shows lowest performance on smaller LOCALSIZE or work group size. In order to achieve the best performance, we need to try to match the work group size to the size of the compute units on the hardware. Using less than 32 threads in a work group results in lower performance. Work group size lower than 8 would have worse performance.
- Graph on Performance vs LOCALSIZE shows best overall performance on the largest DATASIZE – 4194304.