Assignment 2 Plots

Summary
Data
Serial execution time
Parallel execution time
Speedup

Summary

Unfortunately, the serial implementation was faster than the parallelized version using the GPU because of bad memory management.

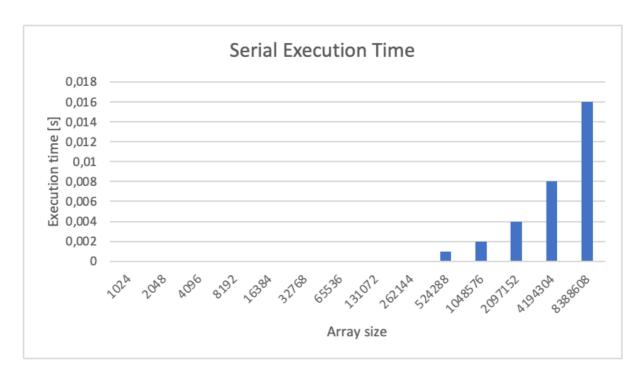
Because the serial implementation had an execution time of 0s for the smaller array sizes, the speedup is also 0 for these data points.

Data

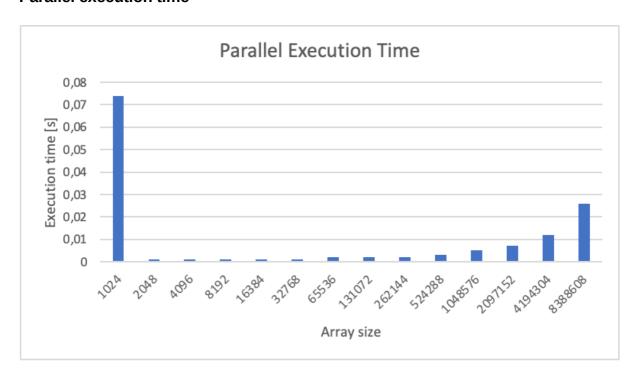
Size	Serial	Parallel	Speedup
1024	0	0,074	0
2048	0	0,001	0
4096	0	0,001	0
8192	0	0,001	0
16384	0	0,001	0
32768	0	0,001	0
65536	0	0,002	0
131072	0	0,002	0
262144	0	0,002	0
524288	0,001	0,003	0,33333333
1048576	0,002	0,005	0,4
2097152	0,004	0,007	0,57142857
4194304	0,008	0,012	0,66666667
8388608	0,016	0,026	0,61538462

Serial execution time

Assignment 2 Plots 1

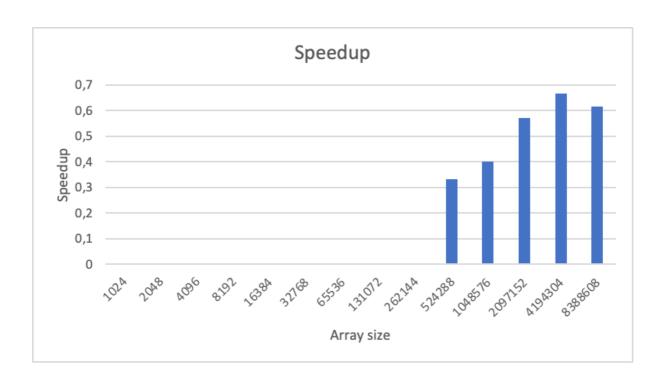


Parallel execution time



Speedup

Assignment 2 Plots 2



Assignment 2 Plots 3