CS540 Practice Assignment 8

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1 Tasks

1. Implement and time a Parallel radix 2 divide and conquer WHT using Pthreads. Compute speedup compared to your sequential code. What was the smallest input size for which you obtained speedup?

2. Implement and time parallel multiple WHTs, i.e. I_M tensor W_N using openMP.

3. Implement and time a Parallel WHT, i.e. W_MN = (W_M tensor I_N)(I_M tensor W_N), using OpenMP. Both the divide and conquer parts should be parallelized. To improve performance (remove false sharing) loop interleaving should be used for (W_M tensor I_N).

2 Results

2.1