

## ECE 284 - Assignment 3 - Report

Ishan Bansal

WI24

A59025917

Q3.a.

Speedup: 11.48 times (Parallelized code: 87 ms; Original Code: 999 ms)

numBlocks: 64

blockSize: 256

Batch Size: 10

Max Reads: 1000

Q3.b.

K-mer Window	Mapping score difference
8, 16	3159
16, 32	7317
8, 32	9295

Q3.c.

The mapping score changes with kmerWindow size because it captures more information about similarity between the query read and the reference sequence when the kmerWindow size is increased. An increased window size increases the sensitivity of the reads at the cost of computational power and time.