

## CS 450 – Assignment 6

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```
richard@richard-Surface-Pro-6:~/Documents/CS 450/Chapter 6$ ./matrixMultiply 1
Running Version 1 of Algorithm...
Execution time Version 1: 455.102 s
richard@richard-Surface-Pro-6:~/Documents/CS 450/Chapter 6$ ./matrixMultiply 2
Running Version 2 of Algorithm...
Execution time Version 2: 148.868 s
richard@richard-Surface-Pro-6:~/Documents/CS 450/Chapter 6$ ./matrixMultiply 3
Running Version 3 of Algorithm...
Execution time Version 3: 130.753 s
richard@richard-Surface-Pro-6:~/Documents/CS 450/Chapter 6$ ./matrixMultiply 4
Running Version 4 of Algorithm...
Execution time Version 4: 129.265 s
richard@richard-Surface-Pro-6:~/Documents/CS 450/Chapter 6$
```

Version	Results	Speedup
1	Base version. No modifications	N/A
2	Parallelized code using 8 cores.	101.407%
3	Implemented a transposition for one of the matrixes, reducing cache miss rate.	12.596%
4	Tested different OMP options. Minimal speedup	1.144%

While I was able to achieve a significant speedup with my code, overall, I feel as though I did not achieve the results which were desired. I feel like there is some fundamental concept I am missing which would have allowed me to achieve more significant results.