

# CS 5220 Project 1

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## **1 Introduction**

In this project, we tried several methods to fine-tuning the general matrix multiplication function. Based on the `dgemm_blocked.c`, we tried unrolling index, modifying loop sequence to take advantage of SSE, and experimenting with different optimization flags.

## **2 block unrolling**

## **3 Loop structure modification and AVX**

## **4 Optimization Flags**

## **5 Plots**

## **6 Next Steps**