

Computer Architecture Spring 2024

Assigned: 2 May 2024 Due: 9 May 2024

Using GPU in Matrix Operations

Overview

In this assignment, you write code to perform Matrix operations using GPUs. This assignment serves to emphasize the gain of using GPUs to process vectors and matrices. You will also observe the effect of different sized matrices on the runtime of your program.

Requirements

- It is required to write a program to compute **C(A x B + B x A)**, where A,B, and C are square matrices of the same **large** size.
- You should analyze the performance of your code on different matrix sizes.
- You should analyze the performance of your code when run on a GPU and when not.

Submission Instructions

- You are allowed to work in pairs.
- Please submit a report including the results for the simulation as described above with your name(s) as well as your student ID(s).
- No late submission is allowed unless there is a valid documented excuse.