605.617 Introduction to GPU Programming

CUDA Streams and Events

Create a program that demonstrates understanding of CUDA Streams and Events. It should perform non-trivial operations, such as performing a variety of mathematical calculations or something even more elaborate. There should be a demonstrable use of streams and events and if timing is measured and presented there will be more credit given to that. Part of your submission should include screen capture of output or something similar, showing your code running with a variety of threads and block sizes.

For your assignment submission, you will need to include either a link to the commit/branch for your assignment submission (preferred method), including all code and artifacts, or the zipped up code for the assignment and images/video/links that show your code completing all of the parts of the rubric that it is designed to complete in what is submitted for this assignment.

If you can show how this will be utilized in your final project, you will get a one-time bonus of 5%.

Task	% of grade
Create a program that shows usage of CUDA Streams and Events.	50
Test harness executes two separate kernels (or two executions of the same kernel) using CUDA streams and events	10
Output timing or other metrics for comparison of different datasets	10
Quality of your code, measured by use of constants, well-named variables and functions, and useful comments in code	20
Command Line tool accepts input of number of threads and block sizes	10
One-time bonus: Your submission will be part of your final project	5