



The School of Technology

BSc (Hons) Computing Software Development (Batch 001 – October 2018)

Experimenting with CUDA

6CS005

Assignment

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A dataset above 100 GB will have many data points in the millions or even milliards of ballparks. It doesn't matter how easily the CPU has many loop points, it just doesn't have ample cores to do effective parallel processing. If your CPU has 20 cores (which is a fairly costly CPU), only 20 data points can be processed at a time!

If functions are more critical, CPUs are best – or you just don't have a GPU implementation. If the method you are aiming for is introduced with a GPU, then the function will benefit from parallel processing if a GPU will be much more successful.

Bitcoin mining, we all learn, using GPU rather than CPU. Bitcoin mining involves a hash function that is repeatedly called millions of times. Ideally, a multi-core machine may handle them concurrently and complete the mining process more efficiently. In comparison to CPU GPU has now millions of cores. That is why the computer-intensive hash problem is completely solved. For many years, Graphics Processing Units (GPUs), precisely because they are more powerful than their immediate relatives, have been used in the mining process.