

GPGPU Assignment #0

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1 Goals

You have to

1. Get your OS/IDE/editor configured and be ready to write CUDA code (How? Google is your friend).
2. Become familiar with CUDA syntax (You should have learnt some of it during the first lecture).

2 Requirements

In this assignment you have to write a simple text transformer in CUDA. We have provided a skeleton and some utilization functions (`SyncedMem<T>` and `MemoryBuffer<T>`).

Here we provide a few possible examples:

```
1 ./a.out test.txt
2 LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT. QU
3 ...
```

Listing 1: Convert all characters to be captial.

```
1 ./a.out test.txt
2 Olerm piusm odolr ist mate, ocsnceetutr dapisiicgn leti. Uq
3 ...
```

Listing 2: Swap all pairs in all words (Note: this is quite hard).

3 Submission

- The submission deadline is 2016/3/2 23:59 (Wed.).
- You will be officially registered to this course only if you you complete and submit a working solution in time.

- We will clone your code through Git using script; you may continue to revise your code before or after the deadline, but we will use the last revision before the deadline.
- Use a non-public Git repository such as Bitbucket, and make sure that your code can be cloned by this account: <https://bitbucket.org/johnjohnlys/>.
- You should complete this homework by yourself. Do not plagiarize, and do not facilitate plagiarism. Make sure your Git repository is not accessible by your classmates.

Please keep the directory structure of the repo we have provided. For this assignment, we will only judge `lab0/main.cu` and you should briefly describe what your code does by commenting the source code.