## **Assignment Part0: making it work**

## Knowing about your hardware

To get you to know what hardware is installed on your machine, we will use *deviceQuery*: a sample tool given by NVIDIA in every CUDA release. To compile it, use the following steps:

```
$ cd 0-deviceQuery
$ mkdir build && cd build
$ cmake ..
$ make
$ ./deviceQuery
```

Here are a few questions you will have to answer based on the ouput of deviceQuery:

- 1. How many compute units (ALU) does your GPU have?
- 2. Suppose that an ALU may proceed 3 floating-point operations per clock cycle. How many computations per second (expressed in FLOPS: Floating-Point Operations Per Second) can your GPU do?
- 3. What is the theoretical memory bandwidth of your GPU?
- 4. Compare your GPU frequency with your CPU frequency (you can use the lscpu command to find the information). Why is the GPU still interesting?