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**Computer Architecture II**

**Programming Assignment 4**

**Results**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Matrix Size | Reference C implementation  (Single thread) | Normal Kernel | Tiled kernel  (Tile size = 8) | Tiled kernel  (Tile size = 16) | Normal Kernel | Tiled kernel  (Tile size = 8) | Tiled kernel  (Tile size = 16) |
| 512 x 512 | 0.770361 | 0.00748778 | 0.0185985 | 0.017144 | 0.0105912 | 0.0116807 | 0.0186161 |
| 1024 x 1024 | 7.08684 | 0.125473 | 0.154348 | 0.135643 | 0.0884573 | 0.0928137 | 0.0155916 |
| 2048 x 2048 | 203.92 | 4.46267 | 1.63644 | 1.25283 | 0.934852 | 0.743764 | 1.24391 |

**CPU Model Info**

$lscpu

Architecture: x86\_64

CPU op-mode(s): 32-bit, 64-bit

Byte Order: Little Endian

CPU(s): 8

On-line CPU(s) list: 0-7

Thread(s) per core: 2

Core(s) per socket: 4

Socket(s): 1

NUMA node(s): 1

Vendor ID: GenuineIntel

CPU family: 6

Model: 94

Model name: Intel(R) Core(TM) i7-6700 CPU @ 3.40GHz

Stepping: 3

CPU MHz: 900.050

CPU max MHz: 4000.0000

CPU min MHz: 800.0000

BogoMIPS: 6816.00

Virtualization: VT-x

L1d cache: 32K

L1i cache: 32K

L2 cache: 256K

L3 cache: 8192K

NUMA node0 CPU(s): 0-7

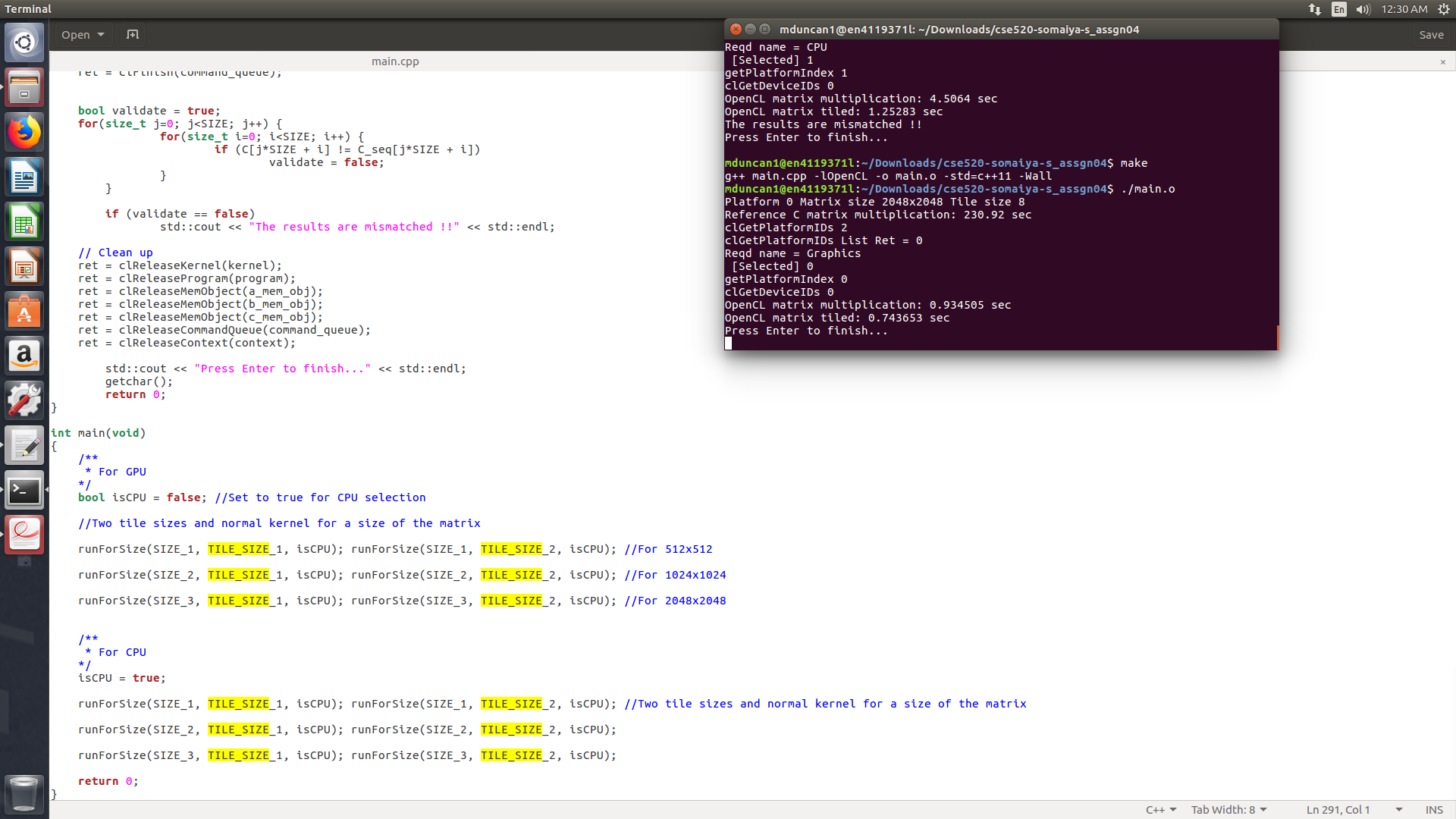
**GPU Model Info**

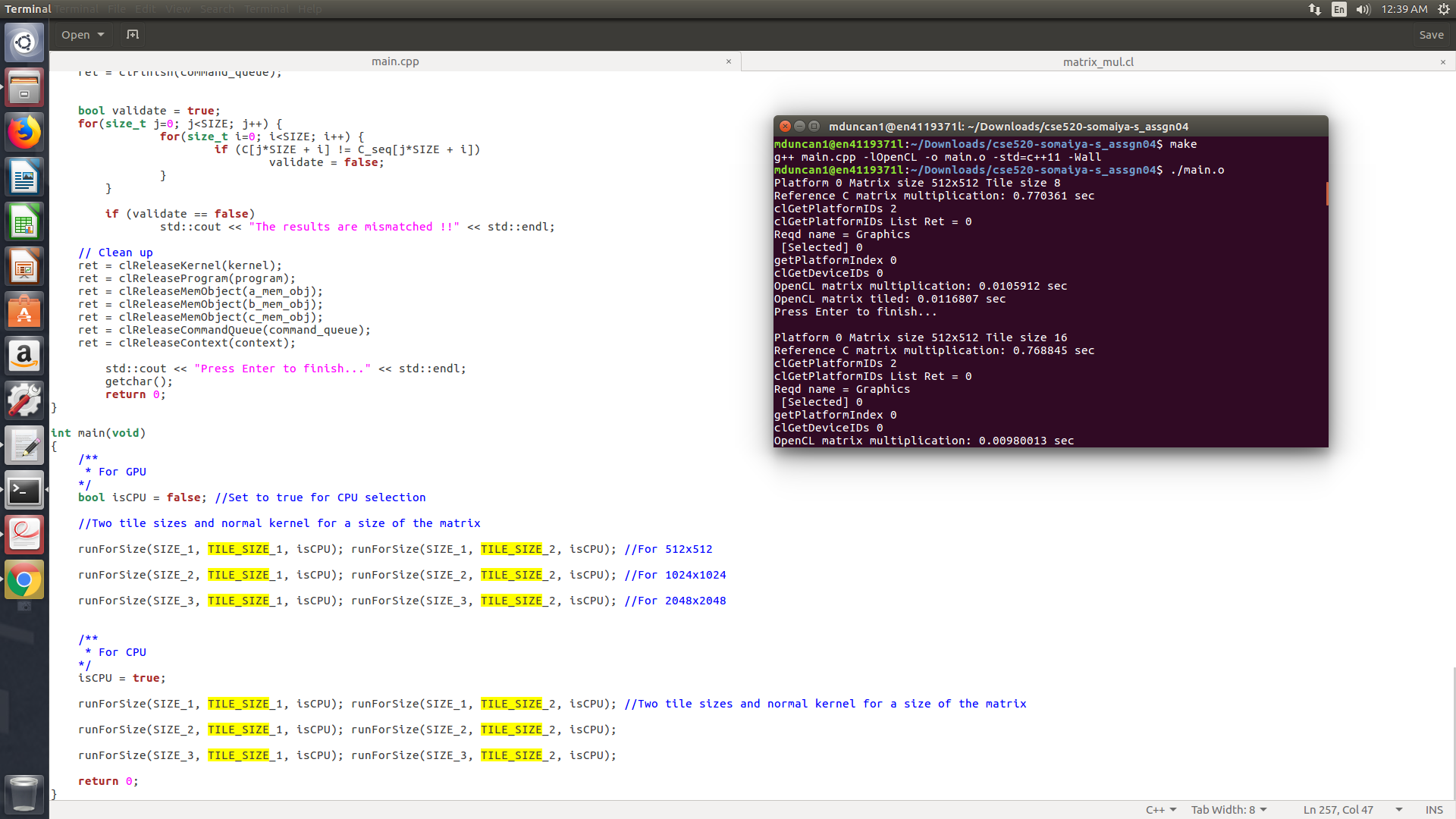
$ lspci | grep VGA

Intel Corporation Sky Lake Integrated Graphics (rev 06)

**Screenshot from the test**

Note: In the following picture, please ignore the “Results are mismtached” from the previous execution

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