

**GPU Architecture & Parallel Computing**

**Lab 4**

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| --- | --- | --- |
| Names | BN | Sec |
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**Delivered to:**

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**Analysis (total time in ns for kernel)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Constant mask** | **Filter** | **Batch size** | **K1** | **K2** | **K3** |
| False | 3\*3 | 2 | 107202 | 95010 | 56801 |
| False | 5\*5 | 2 | 224260 | 204804 | 98658 |
| True | 3\*3 | 2 | 94262 | 96194 | 50503 |

1. When increase the filter size the time taken by the kernel increase
2. K3 is the fastest then K2 then K1
3. When use constant filter all the kernels run faster as they didn’t need to copy the mask to the device each batch just the first one
4. When increase the batch size the kernel time increases
5. For kernel 1 and 3 when use constant mask the kernel time increase as it doesn’t need to move the mask from the host to device each time the kernel call
6. For kernel 2 when use constant mask the time increase but silghtky so it is accepted