



GPU Architecture & Parallel Computing

Lab 4

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 slightly so it is accepted