A05: MANUAL CNN

Team International Neural Intelligence

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ITAI 2376: Deep Learning

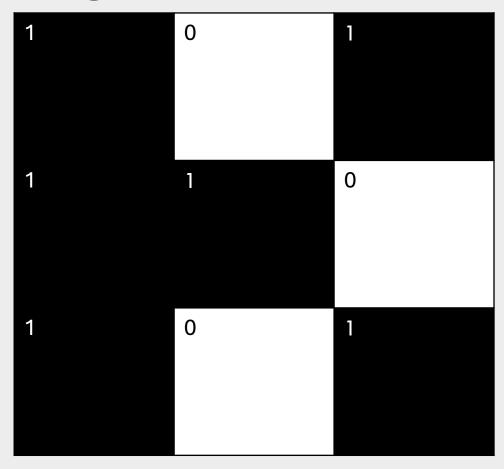
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ORIGINAL IMAGE: LETTER "K"

0	1	0	0	0	0	1	0
0	1	0	0	0	1	0	0
0	1	0	0	1	0	0	0
0	1	0	1	0	0	0	0
0	1	1	0	0	0	0	0
0	1	0	1	0	0	0	0
0	1	0	0	1	0	0	0
0	1	0	0	0	1	0	0

3X3 FILTERS AND MANUAL CONVOLUTION

0	1	0	0	0	0	1	0
0	1	0	0	0	1	0	0
0	1	0	0	1	0	0	0
0	1	0	1	0	0	0	0
0	1		0	0	0	0	0
0	1	0		0	0	0	0
0	1	0	0	1	0	0	0
0	1	0	0	0	1	0	0



3X3 FILTERS AND MANUAL CONVOLUTION

0	1	0	0	0	0	1	0
0	1	0	0	0	1	0	0
0	1	0	0	1	0	0	0
0	1	0	1	0	0	0	0
0	1	1	0	0	0	0	0
0	1	0	1	0	0	0	0
0	1	0	0	1	0	0	0
0	1	0	0	0	1	0	0

0	0	1
0	1	0
1	0	0

3X3 FILTERS AND MANUAL CONVOLUTION

0	1	0	0	0	0	1	0
0	1	0	0	0	1	0	0
0	1	0	0	1	0	0	0
0	1	0	1	0	0	0	0
0	1	1	0	0	0	0	0
0	1	0	1	0	0	0	0
0	1	0	0	1	0	0	0
0	1	0	0	0	1	0	0

1	0	0
0	1	0
0	0	1

FILTERS

-100

Vertical Edge Detection:
-1 0 1
-1 0 1
-1 0 1
Diagonal Edge Detection (Top-Left to Bottom-Right):
-1 0 0
0 1 0
0 0 -1
Diagonal Edge Detection (Bottom-Left to Top-Right):
0 0 -1
0 1 0

Horizontal Edge Detection:

-1 -1 -1

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