Deep Learning Lab

02/10/2020

Due date: 4 September 2020, 23:59

The attached file “in.txt” on moodle is an image represented as a 2-d array of floating point numbers corresponding to grayscale values. Write a program that performs a simple convolution with sobel edge detection filters.

Horizontal edge detector:

-1	-2	-1
0	0	0
1	2	1

Vertical edge detector:

-1	0	1
-2	0	2
-1	0	1

Submit your script and resulting 2 images from horizontal and vertical filters.
You can read the “in.txt” image by “my_image = np.genfromtxt('in.txt', delimiter=',')”
You can apply 1 pixel padding along the borders using numpy’s function.

Submission

Please zip all your files and submit them through Moodle before the deadline.

Late submissions will lose 20 points for each day.

Labs should be completed individually. In the event that academic misconduct such as plagiarism or cheating is discovered, the student will receive no credit for the work, and the event reported to the Dean of your school. Please consult the Academic Integrity Statement given in the syllabus for more details about academic honesty.