Computer vision

Endterm

Date: 10.11.2023

Time: 12:00 – 13:00

Name:

Surname:

Group:

1. Please, answer questions below (60 points):
1.1. Please, describe a pooling layer (15 points).
1.2. Please, describe a batch normalization (15 points).
1.3. Please, explain advantages and disadvantages of the ReLU activation function. Also, write its formula and graph (30 points).

2. Please, solve questions below (40 points):

2.1. Calculate an **output size** where input size is 9x9, filter size is 5x5 and stride is 2 (10 points).

2.2. Calculate an **output size** where input size is 6x6, filter size is 2x2, pad is 1 and stride is 2 (10 points).

3.3. Apply max pool with 3x3 filters and stride 1 for the matrix given below and show your result (20 points).

2	3	4	7	5
5	6	8	9	3
3	5	4	0	4
8	3	4	5	6
6	8	9	4	2