Basic image processing

Quiz, 5 questions

Congratulations! You passed!

Next Item

1 / 1 points

1.

Consider linear contrast correction. Given y_min = 10 and y_max = 207, compute value of pixel with y = 54 after correction. Round result to the nearest integer.

For example, if you get 90.5, type 91

---

1 / 1 points

2.

Convolve a small (4x4 pixels) image ***I*** with a 2x2 kernel ***K*** and write result. Don't use any padding for convolution. Input integer output elements only. Place result of convolution in the variable ***answer.***

```
I = [[8, 6, 2, 7], [6, 2, 4, 1], [5, 8, 5, 2], [3, 0, 3, 2]]
K = [[4, 3], [7, 2]]
```

---

1 / 1 points

3.

You are given images with unknown gamma correction parameters. Choose appropriate gamma for each image. Available gamma values are 0.5, 0.75, 1, 1.5, 2. Type in a comma-separated list of gamma values corresponding to the following list of images. Example of answer: 2, 1.5, 1, 0.75, 0.5

Image 1

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Image 2

Image 3

Image 4

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Image 5

1 / 1 points

4.

How many convolution operations are needed for canny edge detector?

1 / 1 points

5.

Imagine that you want to store color images with alpha (opacity) channel. Four numbers are used for every pixel: three color values (R, G, B) from range [0..31] and one opacity value from range [0..63]. How many bits are used for every pixel?

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