Gradients Quiz

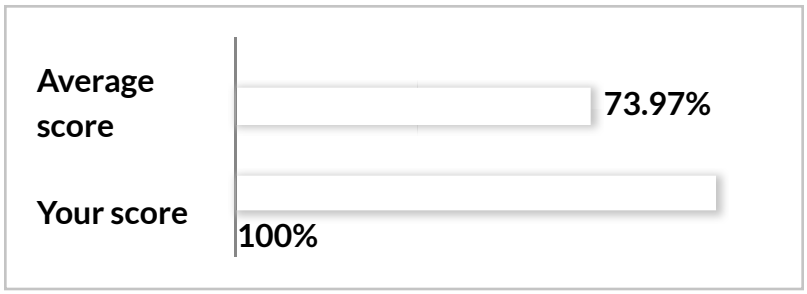
Results

6 of 6 questions answered correctly

Your time: 00:00:22

Feedback

You have reached 6 of 6 points, (100%)



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1. Question

Compute G_y using the North, South, East, and West neighborhood for the following input region of an image:

$$\begin{bmatrix} 44 & 67 & 96 \\ 231 & 184 & 224 \\ 51 & 253 & 36 \end{bmatrix} =?$$

Take note of this value as we'll need it in Question #3.

- -7
- 7
- -186
- **186**

Correct

2. Question

Compute G_x using the North, South, East, and West neighborhood for the following input region of an image:

$$\begin{bmatrix} 44 & 67 & 96 \\ 231 & 184 & 224 \\ 51 & 253 & 36 \end{bmatrix} =?$$

Take note of this value as we'll need it in Question #3.

- 7
- -186
- 186
- **-7**

Correct

3. Question

Based on your values of G_x and G_y from the previous two questions, compute the gradient orientation θ

Feedback

- -2
- -177
- 87
- **92**

Correct

4. Question

Apply the G_y Sobel kernel for the following image region:

$$\begin{bmatrix} 44 & 67 & 96 \\ 231 & 184 & 224 \\ 51 & 253 & 36 \end{bmatrix}$$

Take note of this value as we'll be using it in Question #6.

Feedback

- **319**
- -41
- -1701
- 23

Correct

5. Question

Apply the G_x Sobel kernel for the following image region:

$$\begin{bmatrix} 44 & 67 & 96 \\ 231 & 184 & 224 \\ 51 & 253 & 36 \end{bmatrix}$$

Take note of this value as we'll be using it in Question #6.

- -41
- 379
- **23**
- -1701

Correct

6. Question

Based on the G_x and G_y from your Sobel convolutions in Question #4 and Question #5, compute the gradient orientation θ.

- 4
- **85**
- -91
- -178

Correct

Feedback

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Resources & Links

- PyImageSearch Gurus Community (https://community.pyimagesearch.com/)
- PyImageSearch Virtual Machine (https://gurus.pyimagesearch.com/pyimagesearch-virtual-machine/)
- Setting up your own Python + OpenCV environment (https://gurus.pyimagesearch.com/setting-up-your-python-opencv-development-environment/)
- Course Syllabus & Content Release Schedule (https://gurus.pyimagesearch.com/course-syllabus-content-release-schedule/)
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- Your Achievements (https://gurus.pyimagesearch.com/achievements/)
- Official OpenCV documentation (http://docs.opencv.org/index.html)

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