Week 4 Quiz
Graded Assignment • 20 min

Back

English Due Mar 10, 12:59 AM CST

Your grade: 100%

Your latest: **100%** • Your highest: **100%**
To pass you need at least 80%. We keep your highest score.

Next item →

1. Given the choices below, how do you change the images' pixel values into the range 0 to 1? 1 / 1 point

- ○ By using the tf.keras.layers.Normalization() layer.
- ◉ By using the tf.keras.layers.Rescaling() layer.
- ○ Tensorflow automatically does it for you.
- ○ By setting the "rescale" parameter in tf.keras.utils.image_dataset_from_directory().
- ○ By setting the "normalize" parameter in tf.keras.utils.image_dataset_from_directory().

Correct
You've got it! This is the correct method for rescaling the pixel values.

2. How do you assign labels to images when using tf.keras.utils.image_dataset_from_directory()? 1 / 1 point

- ○ It's based on the file name.
- ○ TensorFlow figures it out from the contents of each file.
- ○ You have to manually do it.
- ◉ It's based on the directory the image is contained in.

Correct
That's right! The directory of the image is the label.

3. When you reduce the resolution of the images before training the network, which of the following after effects happen? 1 / 1 point

- ☑ The training is faster.

Correct
Correct. Because the image is smaller, there are less calculations to be done.

- ☑ Training results may differ.

Correct
Correct. The image now contains different information, thus the results may differ.

- ☐ You no longer need to rescale the pixel values.
- ☑ You lose some of the information from the original images.

Correct
This is correct. If you reduce the image size, you will lose some information, because you have less pixels to store it in.

4. When you specify the input_shape in the tf.keras.layers.Conv2D() to be (300, 300, 3), what does that mean? 1 / 1 point

- ◉ Every image will be 300x300 pixels, with 3 bytes to define color
- ○ There will be 300 images, each size 300, loaded in batches of 3
- ○ There will be 300 horses and 300 humans, loaded in batches of 3
- ○ Every image will be 300x300 pixels, and there should be 3 Convolutional Layers

Correct
Nailed it! input_shape specifies image resolution.

5. If your training accuracy is close to 1.000 but the validation accuracy is far from it, what's the risk here? Select the best answer. 1 / 1 point

- ○ You're underfitting on your validation data
- ○ You're overfitting on your validation data
- ○ No risk, that's a great result.
- ◉ You're overfitting on your training data

Correct
Great job! The model learned the training data too closely, and may therefore fail to generalize to unseen data.

6. How do you specify the target resolution for the images? 1 / 1 point

- ○ By setting the "target_size" parameter in tf.keras.utils.image_dataset_from_directory().
- ◉ By setting the "image_size" parameter in tf.keras.utils.image_dataset_from_directory().
- ○ By using the tf.keras.layers.Rescaling() layer.
- ○ By setting the "training_size" parameter in tf.keras.utils.image_dataset_from_directory().

Correct
That's right!