

✔ **Congratulations! You passed!**

Grade received **100%** To pass 80% or higher

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Week 4 Quiz

Latest Submission Grade 100%

1. Using Image Generator, how do you label images?

1 / 1 point

- ☐ It's based on the file name
- ☐ You have to manually do it
- ☐ TensorFlow figures it out from the contents
- ☒ It's based on the directory the image is contained in

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

2. What method on the Image Generator is used to normalize the image?

1 / 1 point

- ☐ normalize
- ☒ rescale
- ☐ Rescale_image
- ☐ normalize_image

✔ **Correct**
You've got it! This is the correct method for normalizing images.

3. How did we specify the training size for the images?

1 / 1 point

- ☐ The target_size parameter on the validation generator
- ☒ The target_size parameter on the training generator
- ☐ The training_size parameter on the validation generator
- ☐ The training_size parameter on the training generator

✔ **Correct**
Exactly! target_size specifies the image training size

4. When we specify the input_shape to be (300, 300, 3), what does that mean?

1 / 1 point

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



Correct

Nailed it! input_shape specifies image resolution.

5. If your training data is close to 1.000 accuracy, but your validation data isn't, what's the risk here?

1 / 1 point

- ☐ You're overfitting on your validation data
- ☐ You're underfitting on your validation data
- ☐ No risk, that's a great result
- ☒ You're overfitting on your training data



Correct

Great job! The analysis corresponds too closely to the training data, and may therefore fail to fit additional data.

6. Convolutional Neural Networks are better for classifying images like horses and humans because:

1 / 1 point

- ☒ In these images, the features may be in different parts of the frame



Correct

Correct! The receptive fields of different neurons partially overlap such that they cover the entire visual field.

- ☒ There's a wide variety of horses



Correct

Way to go! CNNs are better in this case as they are independent from prior knowledge and human intervention in feature extraction.

- ☒ There's a wide variety of humans



Correct

You've got it! CNNs are better in this case as they are independent from prior knowledge and human intervention in feature extraction.

7. After reducing the size of the images, the training results were different. Why?

1 / 1 point

- ☐ There was more condensed information in the images
- ☐ The training was faster
- ☒ We removed some convolutions to handle the smaller images
- ☐ There was less information in the images



Correct

Yes! Removing some convolutions modifies the training results.