✅ **Congratulations! You passed!**

Grade received 100%   To pass 80% or higher

Week 4 Quiz

Latest Submission Grade 100%

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

1 / 1 point

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

✓ **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_image
- ◉ rescale

✓ **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 training_size parameter on the validation generator
- ○ The training_size parameter on the training generator
- ○ The target_size parameter on the validation generator
- ◉ The target_size parameter on the training generator

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

1 / 1 point

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

✓ **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

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

1 / 1 point

☑ 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.

☑ 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 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.

⊘ **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

⊘ **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

◉ We removed some convolutions to handle the smaller images

◯ There was more condensed information in the images

◯ The training was faster

◯ There was less information in the images

⊘ **Correct**
Yes! Removing some convolutions modifies the training results.