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Grade received 100% To pass 80% or higher

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Week 3 Quiz

Latest Submission Grade 100%

1. If I put a dropout parameter of 0.2, how many nodes will I lose?

1 / 1 point

- ☒ 20% of them
- ☐ 2% of them
- ☐ 20% of the untrained ones
- ☐ 2% of the untrained ones

✓ Correct

2. Why is transfer learning useful?

1 / 1 point

- ☐ Because I can use all of the data from the original training set
- ☐ Because I can use all of the data from the original validation set
- ☒ Because I can use the features that were learned from large datasets that I may not have access to
- ☐ Because I can use the validation metadata from large datasets that I may not have access to

✓ Correct

3. How did you lock or freeze a layer from retraining?

1 / 1 point

- ☐ tf.freeze(layer)
- ☐ tf.layer.frozen = true
- ☐ tf.layer.locked = true
- ☒ layer.trainable = false

✓ Correct

4. How do you change the number of classes the model can classify when using transfer learning? (i.e. the original model handled 1000 classes, but yours handles just 2)

1 / 1 point

- ☐ Ignore all the classes above yours (i.e. Numbers 2 onwards if I'm just classing 2)
- ☐ Use all classes but set their weights to 0
- ☒ When you add your DNN at the bottom of the network, you specify your output layer with the number of classes you want
- ☐ Use dropouts to eliminate the unwanted classes

✓ Correct

5. Can you use Image Augmentation with Transfer Learning Models?

1 / 1 point

- ☐ No, because you are using pre-set features
- ☒ Yes, because you are adding new layers at the bottom of the network, and you can use image augmentation when training these

✓ Correct

6. Why do dropouts help avoid overfitting?

1 / 1 point

- ☒ Because neighbor neurons can have similar weights, and thus can skew the final training

☐ Having less neurons speeds up training

☒ **Correct**

7. What would the symptom of a Dropout rate being set too high?

1 / 1 point

☒ The network would lose specialization to the effect that it would be inefficient or ineffective at learning, driving accuracy down

☐ Training time would increase due to the extra calculations being required for higher dropout

☒ **Correct**

8. Which is the correct line of code for adding Dropout of 20% of neurons using TensorFlow

1 / 1 point

☐ `tf.keras.layers.Dropout(20)`

☐ `tf.keras.layers.DropoutNeurons(20),`

☒ `tf.keras.layers.Dropout(0.2),`

☐ `tf.keras.layers.DropoutNeurons(0.2),`

☒ **Correct**