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**