

✓

Congratulations! You passed!

TO PASS 80% or higher

Keep Learning

GRADE  
87.5%

## Week 3 Quiz

LATEST SUBMISSION GRADE  
87.5%

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

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

3.

How did you lock or freeze a layer from retraining?

0 / 1 point
- ☐

tf.freeze(layer)

☐

tf.layer.frozen = true

☒

tf.layer.locked = true

☐

layer.trainable = false

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

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

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

- ☒

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

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),