

# Avoid Over-fitting Using Regularization

LATEST SUBMISSION GRADE  
100%

1. What are the two types of regularization techniques that you learned in this course?

1 / 1 point

- ☐ Batch Normalization
- ☒ Dropout Regularization

✓ **Correct**  
Correct, this was one of the techniques discussed.

- ☒ Weight Regularization

✓ **Correct**  
Correct, this was one of the techniques discussed.

2. Let's say you have trained a Neural Network model with 10,000 training examples and 2,500 validation examples. At the end of training, you see a training accuracy of 90% and validation accuracy of 93%. Is it a case of the model over-fitting the training data?

1 / 1 point

- ☒ No
- ☐ Yes

✓ **Correct**  
Correct. The validation accuracy is higher than the training accuracy. Therefore, it is not a case of model over-fitting the training data.

3. Let's say you have 4 classes in your data-set represented as 0, 1, 2 or 3. If you were to one-hot-encode a label with value 2, which one would be the encoded label?

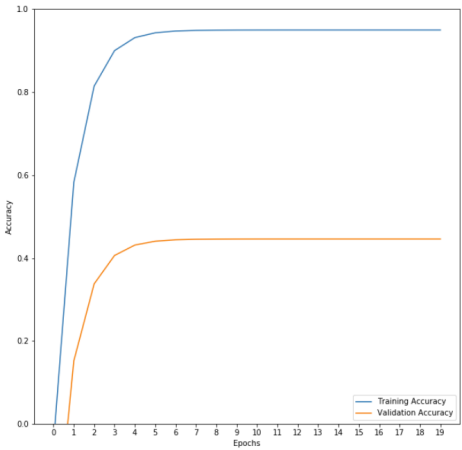
1 / 1 point

- ☐ [1, 1, 0, 1]
- ☒ [0, 0, 1, 0]
- ☐ [0, 1, 0, 0]

✓ **Correct**  
Correct.

4. Take a look at the following plot.

1 / 1 point



As shown, the blue plot represents the training accuracy and the orange plot represents the validation accuracy. Is this a case of over-fitting?

- ☐ No
- ☒ Yes

✓ **Correct**  
Correct.

5. Which function returns the history object which has training metrics like training accuracy and loss?

1 / 1 point

- ☐ model.compile()
- ☒ model.fit()

✓ **Correct**  
Correct.

6. What is the parameter that we set to apply L2 weight regularization in our model's dense layers?

1 / 1 point

- ☐ kernel\_initializer
- ☐ l2
- ☒ kernel\_regularizer

✓ **Correct**  
Correct