

✓ **¡Felicitaciones! ¡Aprobaste!**

Próximo artículo



1 / 1  
puntos

1.

If you have 10,000,000 examples, how would you split the train/dev/test set?



98% train . 1% dev . 1% test

**Correcto**



33% train . 33% dev . 33% test



60% train . 20% dev . 20% test



1 / 1  
puntos

2.

The dev and test set should:



Come from the same distribution

**Correcto**



Come from different distributions



Be identical to each other (same (x,y) pairs)



## Have the same number of examples

---



1 / 1  
puntos

3.

If your Neural Network model seems to have high variance, what of the following would be promising things to try?



Get more test data



**Deseleccionado es lo correcto**



Add regularization



**Correcto**



Get more training data



**Correcto**



Increase the number of units in each hidden layer



**Deseleccionado es lo correcto**



Make the Neural Network deeper



**Deseleccionado es lo correcto**



1 / 1  
puntos

4.

You are working on an automated check-out kiosk for a supermarket, and are building a classifier for apples, bananas and oranges. Suppose your classifier obtains a training set error of 0.5%, and a dev set error of 7%. Which of the following are promising things to try to improve your classifier? (Check all that apply.)





Increase the regularization parameter lambda



**Correcto**



Decrease the regularization parameter lambda



**Deseleccionado es lo correcto**



Get more training data



**Correcto**



Use a bigger neural network



**Deseleccionado es lo correcto**



1 / 1  
puntos

5.

What is weight decay?



The process of gradually decreasing the learning rate during training.



A regularization technique (such as L2 regularization) that results in gradient descent shrinking the weights on every iteration.



**Correcto**



Gradual corruption of the weights in the neural network if it is trained on noisy data.



A technique to avoid vanishing gradient by imposing a ceiling on the values of the weights.



1 / 1  
puntos

6.

What happens when you increase the regularization hyperparameter lambda?



Weights are pushed toward becoming smaller (closer to 0)

**Correcto**



Weights are pushed toward becoming bigger (further from 0)



Doubling lambda should roughly result in doubling the weights



Gradient descent taking bigger steps with each iteration (proportional to lambda)



1 / 1  
puntos

7.

With the inverted dropout technique, at test time:



You do not apply dropout (do not randomly eliminate units) and do not keep the  $1/\text{keep\_prob}$  factor in the calculations used in training



**Correcto**



You do not apply dropout (do not randomly eliminate units), but keep the  $1/\text{keep\_prob}$  factor in the calculations used in training.



You apply dropout (randomly eliminating units) and do not keep the  $1/\text{keep\_prob}$  factor in the calculations used in training



You apply dropout (randomly eliminating units) but keep the  $1/\text{keep\_prob}$  factor in the calculations used in training.



1 / 1  
puntos

8.

Increasing the parameter keep\_prob from (say) 0.5 to 0.6 will likely cause the following: (Check the two that apply)



☐ Increasing the regularization effect



**Deseleccionado es lo correcto**

☒ Reducing the regularization effect



**Correcto**

☐ Causing the neural network to end up with a higher training set error



**Deseleccionado es lo correcto**

☒ Causing the neural network to end up with a lower training set error



**Correcto**



1 / 1  
puntos

9.

Which of these techniques are useful for reducing variance (reducing overfitting)? (Check all that apply.)

☒ Dropout



**Correcto**

☐ Xavier initialization



**Deseleccionado es lo correcto**

☐ Exploding gradient



**Deseleccionado es lo correcto**

☐ Vanishing gradient



**Deseleccionado es lo correcto**

☐ L2 regularization



**Correcto**

☐ Data augmentation



**Correcto**

☐ Gradient Checking



**Deseleccionado es lo correcto**



1 / 1  
puntos

10.

Why do we normalize the inputs  $x$ ?

- ☐ Normalization is another word for regularization--It helps to reduce variance
- ☐ It makes the parameter initialization faster
- ☒ It makes the cost function faster to optimize



**Correcto**

☐ It makes it easier to visualize the data