Practical aspects of deep learning

8/10 points (80%)

Quiz, 10 questions

~	Congra	atulations! You passed!	Next Item
	1. If you set?	1 / 1 points have 10,000,000 examples, how would you split the trai	in/dev/test
	Corr	98% train . 1% dev . 1% test	
		33% train . 33% dev . 33% test 60% train . 20% dev . 20% test	
	2. The de	1 / 1 points ev and test set should:	
	Corr	Come from the same distribution	

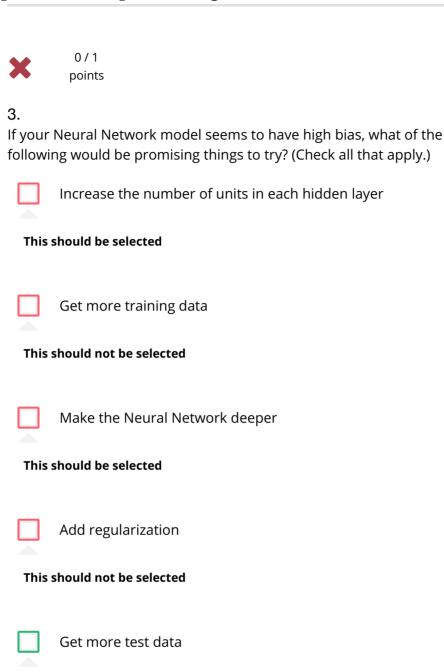
Come from different distributions

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

Have the same number of examples Practical aspects of deep learning

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/

1/1 points

Un-selected is correct

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

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	Decrease the regularization parameter lambda						
Un-se	n-selected is correct						
Corre	Get more training data						
	Use a bigger neural network						
Un-selected is correct							
5. Vhat is	1 / 1 points s weight decay?						
	A technique to avoid vanishing gradient by imposing a ceiling on the values of the weights.						
O	A regularization technique (such as L2 regularization) that results in gradient descent shrinking the weights on every iteration.						
Corre	ect						
	Gradual corruption of the weights in the neural network if it is trained on noisy data.						
	The process of gradually decreasing the learning rate during training.						

/

1/1 points

6.

What happens when you increase the regularization hyperparameter Practical aspects of deep learning

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Ilambat	. I O
0	Weights are pushed toward becoming smaller (closer to 0)
Corre	ect
	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)
•	0 / 1

×

points

7.

With the inverted dropout technique, at test time:

You do not apply dropout (do not randomly eliminate units), but keep the 1/keep_prob factor in the calculations used in training.

This should not be selected

- You do not apply dropout (do not randomly eliminate units) and do not keep the 1/keep_prob factor in the calculations used in training
- You apply dropout (randomly eliminating units) and do not keep the 1/keep_prob factor in the calculations used in training
- You apply dropout (randomly eliminating units) but keep the 1/keep_prob factor in the calculations used in training.



1/1 points

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

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011-3	on-selected is correct						
Corre	Reducing the regularization effect						
	Causing the neural network to end up with a higher training s error						
Un-s	Un-selected is correct						
	Causing the neural network to end up with a lower training set error						
Corre	ect						
~	1/1 points						
	of these techniques are useful for reducing variance (reducing ting)? (Check all that apply.)						
	Dropout						
Corre	ect						
	Exploding gradient						
Un-s	elected is correct						
	Xavier initialization						
Un-selected is correct							
	Data augmentation						

Correct

Practical as	8/10 points (80%)		
Quiz, 10 questions		Vanishing gradient	
	Un-s	elected is correct	
		Gradient Checking	
	Un-s	elected is correct	
		L2 regularization	
	Corr	ect	
			_
	~	1 / 1 points	
	10. Why do	o we normalize the inputs x ?	
	0	It makes the cost function faster to optimize	
	Corr	ect	
		It makes it easier to visualize the data	
		Normalization is another word for regularizationIt helps to reduce variance	
		It makes the parameter initialization faster	
			_





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