Practical aspects of deep learning

10/10 分 (100%)

测验, 10 个问题

恭喜！您通过了！

下一项

1 / 1 分

1。
If you have 10,000,000 examples, how would you split the train/dev/test set?

- 33% train . 33% dev . 33% test
- 60% train . 20% dev . 20% test
- 98% train . 1% dev . 1% test

正确

1 / 1 分

2。
The dev and test set should:

- Come from the same distribution

正确

- Come from different distributions
- Be identical to each other (same (x,y) pairs)
-

Have the same number of examples

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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

未选择的是正确的

- [ ] Make the Neural Network deeper

未选择的是正确的

- [ ] Increase the number of units in each hidden layer

未选择的是正确的

- [ ] Add regularization

正确

- [ ] Get more training data

正确

1 / 1 分

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

未选择的是正确的

- [ ] Get more training data

正确

- [ ] Use a bigger neural network

未选择的是正确的

✔ 1 / 1 分

5。

What is weight decay?

- ○ A technique to avoid vanishing gradient by imposing a ceiling on the values of the weights.
- ◉ A regularization technique (such as L2 regularization) that results in gradient descent shrinking the weights on every iteration.

正确

- ○ The process of gradually decreasing the learning rate during training.
- ○ Gradual corruption of the weights in the neural network if it is trained on noisy data.

✔ 1 / 1 分

6。

What happens when you increase the regularization hyperparameter lambda?

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- (●) Weights are pushed toward becoming smaller (closer to 0)

正确

- ( ) 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 分

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/keep_prob factor in the calculations used in training

正确

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

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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- [x] Reducing the regularization effect

正确

- [ ] Causing the neural network to end up with a higher training set error

未选择的是正确的

- [x] Causing the neural network to end up with a lower training set error

正确

✔ 1 / 1 分

9。
Which of these techniques are useful for reducing variance (reducing overfitting)? (Check all that apply.)

- [x] L2 regularization

正确

- [ ] Exploding gradient

未选择的是正确的

- [x] Dropout

正确

- [x] Data augmentation

正确

Xavier initialization

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测验, 10 个问题

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Gradient Checking

未选择的是正确的

Vanishing gradient

未选择的是正确的

1 / 1 分

10。

Why do we normalize the inputs x?

Normalization is another word for regularization--It helps to reduce variance

It makes it easier to visualize the data

It makes the cost function faster to optimize

正确

It makes the parameter initialization faster