檢閱: NTUT EE AI - Mock Exam ([NTUT-Sync]112-1_324028_深度學習應用開發實務)

回應者
███████████

07:55
完成時間

100/100
點數

✓ **正確** 10/10 點數

10 / 10 點
已自動評分

1

Here is a COVID-19 test result. The rows are predictions while the columns are true condition. Positive means the patient is infected. What is the accuracy? (Please enter number between 0 and 1)

COVID-19 Test		True Condition	
		Positive (infected)	Negative
Prediction	Positive	1	1
	Negative	3	5

0.6

✓ **正確** 10/10 點數

10 / 10 點
已自動評分

2

You are training a classifier on a highly imbalanced dataset. The majority class accounts for 99% of the training data, and your classifier achieved 99% accuracy. Which statements are true?

- ☑ Accuracy metric is not a good idea for imbalanced class problems ✓

- ☐ Accuracy metric is a good idea for imbalanced class problems

- ☑ Precision and recall metrics are good for imbalanced class problems ✓

- ☐ Precision and recall metrics aren't good for imbalanced class problems

3

Training error can be viewed as a bias-variance tradeoff. In general, which type of error is larger when the model complexity decreases (underfitting)?

◉ Bias ✓

○ Variance

○ Both

○ None

4

Given a training sample, suppose its true label y=1, and our prediction p = 0.7, what is the binary cross entropy loss?

○ -0.3

○ -0.7

○ -log(0.3)

◉ -log(0.7) ✓

○ -0.7*log(0.7)

5

Two events X and Y are mutually exclusive if

◉ P(XY) = 0 ✓

○ P(XY) = P(X)P(Y)

○ P(XY) = P(X)

○ P(XY) = P(Y)

6

Which statement about Bayes theorem is TRUE?

○ P(AB) = P(B|A)*P(A) / P(B)

○ P(B|A) = P(B|A)*P(A) / P(B)

○ P(A|B) = P(B|A)*P(B) / P(A)

◉ P(A|B) = P(B|A)*P(A) / P(B) ✓

7

Suppose your input is a 200 by 200 color grayscale image, and you have first fully connected hidden layer with 100 neurons. How many parameters does this hidden layer have (including the bias parameters)?

4000100

8

Suppose your input is a 1024 by 768 color (RGB) image, and you use a convolutional layer with 100 filters that are each 3x3. How many parameters does this hidden layer have (including the bias parameters)?

2800

9

Which of the following do you typically see as you move to deeper layers in a ConvNet?

○ nH and nW decrease, while nC decreases

○ nH and nW increase, while nC decreases

◉ nH and nW decrease, while nC increases ✓

○ nH and nW increase, while nC increases

10

What is the value of z in the Python code below?

```python
import numpy as np
w = np.array([[1,1,0], [0, 1, 1]])
x = np.array([[1,0],[0,1],[1,0]])
y = np.matmul(w, x)
z = np.sum(y)
```

4