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State Finished

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Time taken 7 mins 33 secs

Points 9.00/10.00

Grade 90.00 out of 100.00

Question **1**

Correct

1.00 points out of 1.00

Because their decisions are determined by algorithms, the behavior of machine learning systems is always fair to all people affected by the systems' outputs.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question **2**

Correct

1.00 points out of 1.00

Different statistical measures of fairness can be at odds with one another with respect to the fairness of a machine learning system's behavior.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 3

Correct

1.00 points out of 1.00

This is one of two questions on the following scenario:

Suppose that you are given a dataset of information about songs, with each song having features for length (in seconds), tempo (number of beats per second), average pitch (a floating point number), and whether or not the song was a hit (expressed as True or False).

Suppose that you are given the job of producing an Adaline model that predicts, from the other features, whether or not a song is a hit.

Check the description below that applies to this problem setting.

Select one:

- ☒ Binary classification ✓
- ☐ Nonlinear regression
- ☐ Unsupervised learning
- ☐ Step function

Your answer is correct.

The correct answer is: Binary classification

Question 4

Incorrect

0.00 points out of 1.00

In a problem setting with separate training and testing sets, during learning the model should be exposed to which of the following?

Select one:

- ☐ Only the training set
- ☐ Neither the training set nor the testing set
- ☐ Only the testing set
- ☒ Both the training set and the testing set ✗

Your answer is incorrect.

The correct answer is: Only the training set

Question 5

Correct

1.00 points out of 1.00

The primary purpose of a one-vs-rest classifier is to

Select one:

- ☐ provide resting time for convergence between training and testing.
- ☐ eliminate the need for feature standardization.
- ☒ classify data with more than two classes. ✓
- ☐ force all unclassified data to have value 1.
- ☐ ensure fair classification.

Your answer is correct.

The correct answer is: classify data with more than two classes.

Question 6

Correct

1.00 points out of 1.00

The only source of bias for machine learning systems is bias in historical data used for training.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 7

Correct

1.00 points out of 1.00

Python's built-in serialization module, which can be used to save and restore trained models, is called

Select one:

- ☐ dumpster
- ☒ pickle ✓
- ☐ dataframe
- ☐ SVM
- ☐ streamer

Your answer is correct.

The correct answer is: pickle

Question 8

Correct

1.00 points out of 1.00

Scikit-learn estimators for classification implement which of the following?

Select one:

- ☐ learn()
- ☐ classify()
- ☐ estimate()
- ☒ fit() ✓
- ☐ separate()

Your answer is correct.

The correct answer is: fit()

Question 9

Correct

1.00 points out of 1.00

Scikit-learn provides methods for both supervised and unsupervised learning.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 10

Correct

1.00 points out of 1.00

This is one of two questions on the following scenario:

Suppose that you are given a dataset of information about songs, with each song having features for length (in seconds), tempo (number of beats per second), average pitch (a floating point number), and whether or not the song was a hit (expressed as True or False).

Suppose that you are given the job of producing an Adaline model that predicts, from the other features, whether or not a song is a hit.

Check the description below that applies to this problem setting.

Select one:

- ☐ Reinforcement learning
- ☒ Supervised learning ✓
- ☐ Clustering
- ☐ Density estimation

Your answer is correct.

The correct answer is: Supervised learning

◀ Code from class (perceptrons in scikit-learn)

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