Started on	Friday, May 5, 2023, 1:41 PM
State	Finished
Completed on	Friday, May 5, 2023, 1:54 PM
Time taken	13 mins 1 sec
Points	10.00/10.00
Grade	**100.00** out of 100.00

Question **1**

Correct

1.00 points out of 1.00

Realistic-looking but fake faces are commonly created using

Select one:

- two-faced machine learning.
- neural architecture search.
- symbolic regression.
- support vector machines.
- generative adversarial networks. ✔
- chained support vector machines.
- facial recognition systems.

Your answer is correct.

The correct answer is: generative adversarial networks.

Question 2

Correct

1.00 points out of 1.00

Suppose you have a collection of tweets, annotated by whether or not you "liked" them. You want to train a random forest classifier, using this data, to predict whether or not you will like other tweets. To convert the tweets into the proper format for random forest training, you might use

Select one:

- a bag of words model. ✔
- a zero-knowledge proof.
- logistic regression.
- a support vector machine.
- a generative adversarial network.
- dynamic programming.
- alpha beta pruning.
- Q-learning.

Your answer is correct.

The correct answer is: a bag of words model.

Question 3

Correct

1.00 points out of 1.00

A GPU may be particularly useful for training a

Select one:

- recurrent neural network with a single hidden layer.
- generative adversarial network for image generation. ✔
- logistic regression model for categorical data.
- support vector machine when the training data is not linearly separable.
- perceptron on unusually small data sets.

Your answer is correct.

The correct answer is: generative adversarial network for image generation.

Question 4

Correct

1.00 points out of 1.00

In autoencoders, the correct outputs

Select one:

- depend on the order in which examples are processed.
- are produced more quickly than incorrect outputs.
- are produced automatically, without training.
- are equal to the inputs. ✔
- are linearly separable.
- are standardized without post-processing.

Your answer is correct.

The correct answer is: are equal to the inputs.

Question 5

Correct

1.00 points out of 1.00

In an n-gram model

Select one:

- documents are constructed out of sequences of random vocabulary items, from which n are then selected.
- the feature vector for each document consists of counts of the occurrences of all vocabulary item sequences of length n. ✔
- documents are converted to feature vectors using ensembles of n-layer neural networks.
- each word is indexed by the sum of the ASCII values of its characters modulo n.
- words that share substrings of length at least n will always map to similar feature vectors.

Your answer is correct.

The correct answer is: the feature vector for each document consists of counts of the occurrences of all vocabulary item sequences of length n.

Question **6**

Correct

1.00 points out of 1.00

Because text data is sequential, some natural language processing task are addressed using

Select one:

- symbolic regression.
- ordinary least squares.
- generative adversarial networks.
- logistic regression.
- SQL queries.
- the "no free lunch" theorem.
- recurrent neural networks. ✔
- the curse of dimensionality.

Your answer is correct.

The correct answer is: recurrent neural networks.

Question **7**

Correct

1.00 points out of 1.00

The overall architecture of a genetic adversarial network consists of

Select one:

- a collection of at least three competing adversaries.
- a collection of at least five competing adversaries.
- a single perceptron with a large number of inputs.
- an input layer, a hidden layer with recurrent connections, and a single output node.
- a generator and a discriminator. ✔
- an ensemble of decision trees.

Your answer is correct.

The correct answer is: a generator and a discriminator.

Question 8

Correct

1.00 points out of 1.00

Generative adversarial networks commonly fail to produce satisfactory results because of

Select one:

- floating-point overflow.
- non-standardized data.
- image saturation.
- mode collapse. ✔
- the curse of dimensionality.

Your answer is correct.

The correct answer is: mode collapse.

Question 9

Correct

1.00 points out of 1.00

In a "bag of words" model

Select one:

- words that share substrings will be treated similarly.
- documents are converted to feature vectors using ensembles of perceptrons.
- the feature vector for each document consists of counts of the occurrences of all vocabulary items. ✔
- bagging and possibly boosting are used to improve generalization.
- documents are constructed out of words chosen in random order.
- bagging and possibly boosting are used to improve classification accuracy.
- documents are converted to feature vectors using ensembles of support vector machines.
- each word is indexed by the sum of the ASCII values of its characters.

Your answer is correct.

The correct answer is: the feature vector for each document consists of counts of the occurrences of all vocabulary items.

Question **10**

Correct

1.00 points out of 1.00

For which of the following are autoencoders commonly used?

Select one:

- dimensionality reduction ✔
- regression
- standardization
- clustering
- classification

Your answer is correct.

The correct answer is: dimensionality reduction

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