Congratulations! You passed!

Next Item

1 / 1 point

1. Which of the following are components in building a machine learning algorithm?

- Training and test sets
- Machine learning
- Artificial intelligence
- Collecting data to answer the question.

Correct

- Statistical inference

1 / 1 point

2. Suppose we build a prediction algorithm on a data set and it is 100% accurate on that data set. Why might the algorithm not work well if we collect a new data set?

- We have too few predictors to get good out of sample accuracy.
- We have used neural networks which has notoriously bad performance.

We may be using a bad algorithm that doesn't predict well on this kind of data.

Our algorithm may be overfitting the training data, predicting both the signal and the noise.

Correct

✔ 1 / 1 point

3. What are typical sizes for the training and test sets?

100% training set, 0% test set.

20% training set, 80% test set.

60% in the training set, 40% in the testing set.

Correct

90% training set, 10% test set

Quiz 1

Quiz, 5 questions

✔ 1 / 1 point

4. What are some common error rates for predicting binary variables (i.e. variables with two possible values like yes/no, disease/normal, clicked/didn't click)? Check the correct answer(s).

Specificity

Correct

R^2

- Root mean squared error
- Correlation
- Median absolute deviation

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1 / 1 point

5. Suppose that we have created a machine learning algorithm that predicts whether a link will be clicked with 99% sensitivity and 99% specificity. The rate the link is clicked is 1/1000 of visits to a website. If we predict the link will be clicked on a specific visit, what is the probability it will actually be clicked?

- 99%
- 89.9%
- 0.009%
- 9%

Correct
