Quiz 1

Quiz, 5 questions

Try again once you are ready.

Required to pass: 80% or higher

You can retake this quiz up to 3 times every 8 hours.

Back to Week 1

Retake

0 / 1 points

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

- [ ] Machine learning
- [ ] Creating features.
- [x] Training and test sets

This should not be selected

- [ ] Artificial intelligence
- [ ] Statistical inference

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1 / 1 points

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 are not asking a relevant question that can be answered with machine learning.
- [x] Our algorithm may be overfitting the training data, predicting both the signal and the noise.

Correct

- [ ] We have used neural networks which has notoriously bad performance.
- [ ] We may be using bad variables that don't explain the outcome.v

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0 / 1 points

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

- [ ] 50% in the training set, 50% in the testing set.
- [ ] 80% training set, 20% test set
- [ ] 0% training set, 100% test set.
- [x] 90% training set, 10% test set

This should not be selected

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1 / 1 points

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).

- [ ] Correlation
- [ ] Root mean squared error
- [ ] Median absolute deviation
- [x] Accuracy

Correct

- [ ] R^2

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1 / 1 points

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?

- [ ] 89.9%
- [x] 9%

Correct

- [ ] 0.009%
- [ ] 50%
