Feedback — Quiz 1

Thank you. Your submission for this quiz was received.

You submitted this quiz on **Sun 8 Nov 2015 3:14 AM PST**. You got a score of **15.00** out of **15.00**.

Question 1

Which of the following are steps in building a machine learning algorithm?

Your Answer		Score	Explanation
⦿ Deciding on an algorithm.	✔	3.00	
○ Machine learning			
○ Data mining			
○ Training and test sets			
Total		3.00 / 3.00	

Question 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?

Your Answer	Score	Explanation
○ We have used neural networks which has notoriously bad performance.		
◉ Our algorithm may be overfitting the training data, predicting both the signal and the noise.	✔ 3.00	
○ We are not asking a relevant question that can be answered with machine learning.		
○ We may be using a bad algorithm that doesn't predict well on this kind of data.		
Total	3.00 / 3.00	

Question 3

What are typical sizes for the training and test sets?

Your Answer	Score	Explanation
◉ 60% in the training set, 40% in the testing set.	✔ 3.00	
○ 10% test set, 90% training set		
○ 100% training set, 0% test set.		
○ 80% training set, 20% test set		
Total	3.00 / 3.00	

Question 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)?

Your Answer	Score	Explanation
○ P-values		
○ Correlation		
○ Median absolute deviation		
⦿ Predictive value of a positive	✔ 3.00	
Total	3.00 / 3.00	

Question 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?

Your Answer	Score	Explanation
○ 90%		
○ 99.9%		
○ 89.9%		
⦿ 9%	✔ 3.00	
Total	3.00 / 3.00	