You submitted this quiz on **Wed 13 Nov 2013 8:22 PM PST**. You got a score of **11.00** out of **11.00**.

In this assignment, you need to apply a set of metrics to two data sets, classifier-data-asgn2.csv and regressor-data-asgn2.csv.

These are not real data sets, but are simulated data, generated for the purpose of this assignment.

You can use any tool you want to complete this assignment. This includes Microsoft Excel, and statistical or data mining package you choose, and other tools available on the internet.

### **Question 1**

Using regressor-data-asgn2.csv, what is the Pearson correlation between data and predicted (model)? (Round to three significant digits; e.g. 0.24675 should be written as 0.247) (Hint: this is easy to compute in Excel)

#### You entered:

0.705

Your Answer		Score	Explanation
0.705	<b>~</b>	1.00	
Total		1.00 / 1.00	

#### **Question 2**

Using regressor-data-asgn2.csv, what is the RMSE between data and predicted (model)? (Round to three significant digits; e.g. 0.24675 should be written as 0.247) (Hint: this is easy to compute in Excel)

# Your Answer Score

Your Answer		Score	Explanation
0.242	<b>~</b>	1.00	
Total		1.00 / 1.00	

## **Question 3**

Using regressor-data-asgn2.csv, what is the MAD between data and predicted (model)? (Round to three significant digits; e.g. 0.24675 should be written as 0.247) (Hint: this is easy to compute in Excel)

#### You entered:

0.202

Your Answer		Score	Explanation
0.202	~	1.00	
Total		1.00 / 1.00	

## **Question 4**

Using classifier-data-asgn2.csv, what is the accuracy of the predicted (model)? Assume a threshold of 0.5. (Just give a rounded value rather than including the decimal; e.g. write 57.213% as 57) (Hint: this is easy to compute in Excel)

#### You entered:

73%

Your Answer		Score	Explanation
73%	~	1.00	
Total		1.00 / 1.00	

# **Question 5**

Using classifier-data-asgn2.csv, how well would a detector perform (in terms of accuracy), if it always picked the majority (most common) class? (Just give a rounded value rather than including the decimal; e.g. write 57.213% as 57) (Hint: this is easy to compute in Excel)

#### You entered:

51	

Your Answer		Score	Explanation
51	~	1.00	
Total		1.00 / 1.00	

## **Question 6**

Is this detector's performance better than chance, according to the accuracy and the frequency of the most common class?

	our Answer	Score	Explanation
Yes <b>✓</b> 1.00	No		
	Yes	1.00	
otal 1.00 / 1.00	otal	1.00 / 1.00	

## **Question 7**

What is this detector's value for Cohen's Kappa? Assume a threshold of 0.5. (Just round to the first two decimal places; e.g. write 0.74821 as 0.75).

#### You entered:



Your Answer		Score	Explanation
0.46	~	1.00	
Total		1.00 / 1.00	

## **Question 8**

What is this detector's precision, assuming we are trying to predict "Y" and assuming a threshold of 0.5 (Just round to the first two decimal places; e.g. write 0.74821 as 0.75).

#### You entered:

0.95

Your Answer		Score	Explanation
0.95	~	1.00	
Total		1.00 / 1.00	

## **Question 9**

What is this detector's recall, assuming we are trying to predict "Y" and assuming a threshold of 0.5 (Just round to the first two decimal places; e.g. write 0.74821 as 0.75).

#### You entered:



Your Answer		Score	Explanation
0.47	<b>~</b>	1.00	
Total		1.00 / 1.00	

## **Question 10**

Based on the precision and recall, should this detector be used for strong interventions that have a high cost if mis-applied, or fail-soft interventions with low benefit and a low cost if mis-applied?

Your Answer		Score	Explanation
STRONG	~	1.00	
FAIL-SOFT			
NEITHER			
© EITHER			
Total		1.00 / 1.00	

## **Question 11**

What is this detector's value for A'? (Hint: There are some data points with the exact same detector confidence, so it is probably preferable to use a tool that computes A', such as http://www.columbia.edu/~rsb2162/computeAPrime.zip -- rather than a tool that computes the area under the ROC curve). Please round to two decimal places.

#### You entered:

0.95

Your Answer		Score	Explanation
0.95	~	1.00	
Total		1.00 / 1.00	
otal		1.00 / 1.00	