

1	
point	

1

A supervised learning model has been built to predict whether someone is infected with a new strain of a virus. The probability of any one person having the virus is 1%. Using accuracy as a metric, what would be a good choice for a baseline accuracy score that the new model would want to outperform?

1 point

2.

Given the following confusion matrix:

	Predicted Positive	Predicted Negative
Condition Positive	96	4
Condition Negative	8	19

Compute the accuracy to three decimal places.

0.906

1 point

3.

Given the following confusion matrix:

	Predicted Positive	Predicted Negative
Condition Positive	96	4
Condition Negative	8	19

Compute the precision to three decimal places.

0.923

1 point

4.



Given the following confusion matrix: $Module\ 3\ Quiz$

Condition Negative

Quiz, 14 questions	Predicted Positive	Predicted Negative
Condition Positive	96	4

8

Compute the recall to three decimal places.

19

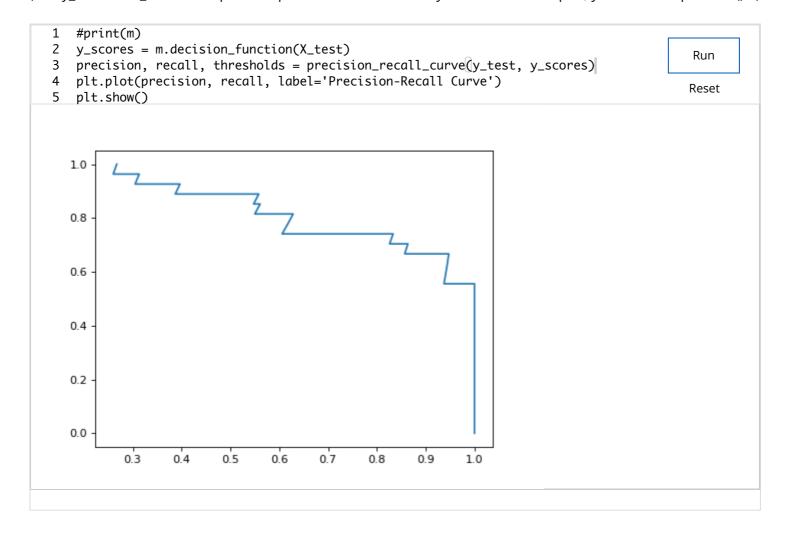
1 point

5

Using the fitted model `m` create a precision-recall curve to answer the following question:

For the fitted model `m`, approximately what precision can we expect for a recall of 0.8?

(Use y_test and X_test to compute the precision-recall curve. If you wish to view a plot, you can use `plt.show()`)

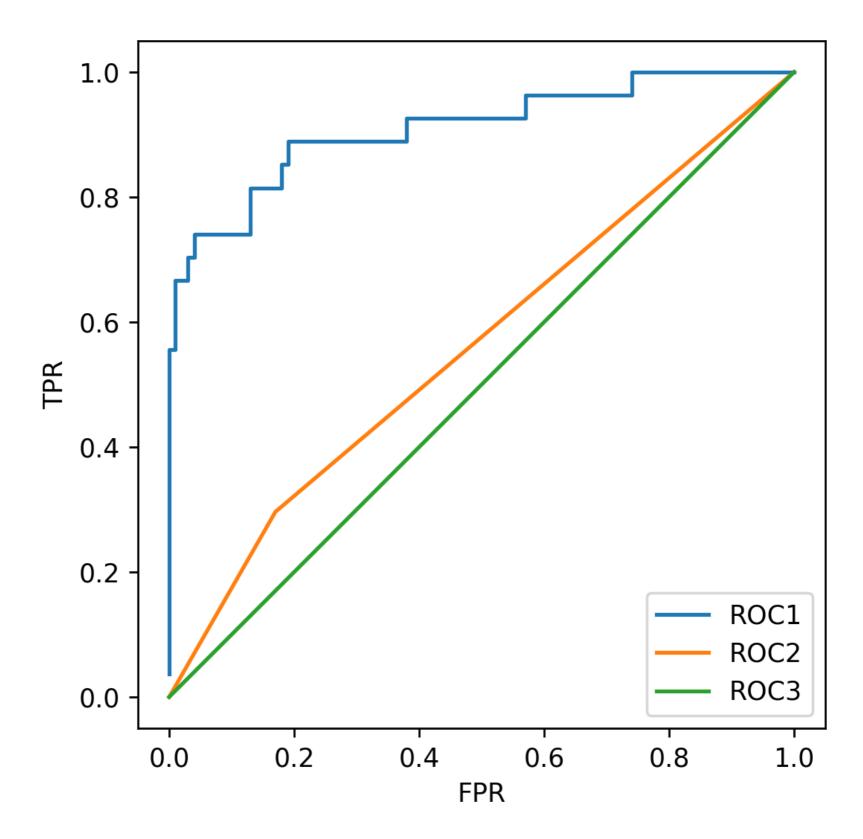


1 point

6.

 \leftarrow

- QNiTode বিশেশ হার্যাক set AUC score: 0.91
- Model 2 test set AUC score: 0.50
- Model 3 test set AUC score: 0.56



- Model 1: Roc 1
 - Model 2: Roc 2
 - Model 3: Roc 3
- Model 1: Roc 1
 - Model 2: Roc 3
 - Model 3: Roc 2
- Model 1: Roc 2
 - Model 2: Roc 3
 - Model 3: Roc 1
- Model 1: Roc 3
 - Model 2: Roc 2
 - Model 3: Roc 1
- Not enough information is given.



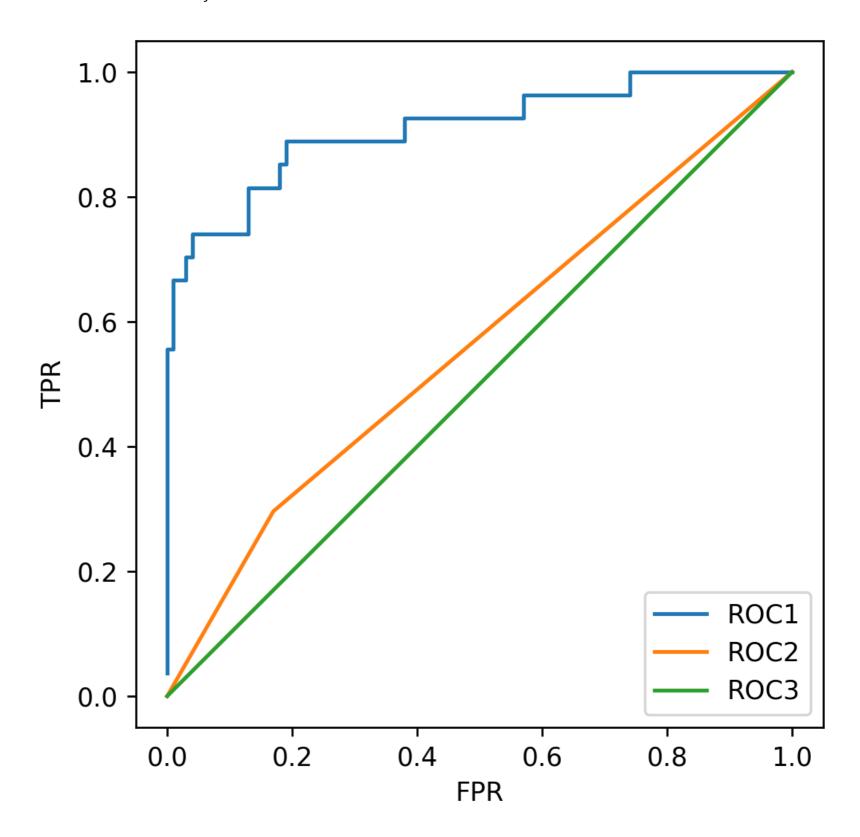
Module 3 Quiz

Quiz, 14 questions point

7.

Given the following models and accuracy scores, match each model to its corresponding ROC curve.

- Model 1 test set accuracy: 0.91
- Model 2 test set accuracy: 0.79
- Model 3 test set accuracy: 0.72



- Model 1: Roc 1
 - Model 2: Roc 2
 - Model 3: Roc 3
- Model 1: Roc 1
 - Model 2: Roc 3
 - Model 3: Roc 2
- Model 1: Roc 2
 - Model 2: Roc 3
 - Model 3: Roc 1
- Model 1: Roc 3



1 #print(m) 2 y_predicted = m.predict(X_test) 3 print(precision_score(y_test, y_predicted, average macro')) Reset 0.805008635579 0.805008635579 None 0.805
2 y_predicted = m.predict(X_test) 3 print(precision_score(y_test, y_predicted, average macro')) Reset 0.805008635579 0.805008635579 None 0.805 1 point 9. Which of the following is true of the R-Squared metric? (Select all that apply) The best possible score is 1.0
0.805 0.805 1 point 9. Which of the following is true of the R-Squared metric? (Select all that apply) The best possible score is 1.0
1 point 9. Which of the following is true of the R-Squared metric? (Select all that apply) The best possible score is 1.0
9. Which of the following is true of the R-Squared metric? (Select all that apply) The best possible score is 1.0
The best possible score is 1.0
A model that always predicts the mean of y would get a score of 0.0
A model that always predicts the mean of y would get a negative score
The worst possible score is 0.0
1 point
10. In a future society, a machine is used to predict a crime before it occurs. If you were responsible for tuning this machine, what evaluation metric would you want to maximize to ensure no innocent people (people not about to commit a crime) are imprisoned (where crime is the positive label)?
Accuracy
Precision
Recall
F1
AUC

point

 \leftarrow

w@wikd	વિપારિ તે વિપાર્મિટ from the previous question. If you were responsible for tuning this machine, what evaluation metric પુરુષા ભાગા કર્યા તે તે કર્યા કર્યો કર્યા
	Accuracy
	Precision
	Recall
	F1
	AUC
	ifier is trained on an imbalanced multiclass dataset. After looking at the model's precision scores, you find that the averaging is much smaller than the macro averaging score. Which of the following is most likely happening? The model is probably misclassifying the frequent labels more than the infrequent labels.
	The model is probably misclassifying the infrequent labels more than the frequent labels.
10]. Th	the already defined RBF SVC model `m`, run a grid search on the parameters C and gamma, for values [0.01, 0.1, 1 de grid search should find the model that best optimizes for recall. How much better is the recall of this model than ecision? (Compute recall - precision to 3 decimal places)
1 2 3 4 5 6 7	<pre>#print(m) parameters = {'gamma': [0.01, 0.1, 1, 10], 'C':[0.01, 0.1, 1, 10]} clf = GridSearchCV(m, parameters, scoring = 'recall') clf.fit(X_train, y_train) y_predicted = clf.predict(X_test) print(recall_score(y_test,y_predicted)-precision_score(y_test,</pre>
0.5 0.5 Non	2
0.5	2
1	
poin	t
14.	

https://www.coursera.org/learn/python-machine-learning/exam/Wxgra/module-3-quiz



Using the already defined RBF SVC model `m`, run a grid search on the parameters C and gamma, for values [0.01, 0.1, 1, 1 M Od y le sa Qhi Rould find the model that best optimizes for precision. How much better is the precision of this model thिकांटरित पारक्षां?ग(Compute precision - recall to 3 decimal places)

(Use y_test and X_test to compute precision and recall.)

1 2	#print(m)	
3	parameters = {'gamma': [0.01, 0.1, 1, 10], 'C':[0.01, 0.1, 1, 10]} clf = GridSearchCV(m, parameters, scoring = 'precision')	
5 6	<pre>clf.fit(X_train, y_train) y_predicted = clf.predict(X_test)</pre>	Run
7	<pre>print(precision_score(y_test, y_predicted)-recall_score(y_test</pre>	Reset
0. 0. No	15	

0.15

I, Yuhui Chou, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

Learn more about Coursera's Honor Code

Submit Quiz



