Evaluation Quiz

Due No due date **Points** 3 **Questions** 3 **Available** after Mar 23 at 0:00
Time Limit None **Allowed Attempts** Unlimited

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Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	less than 1 minute	0 out of 3

Submitted Jun 16 at 18:19

Unanswered

Question 1

0 / 1 pts

On a given test data, a classifier detects 4 TP, 3 TN, 6 FP, and 0 FN. The Precision (P), Recall (R) and F-score (assume β=1) of the classifier are:

- P:0.1, R:1, F:0.8

orrect Answer

- P:0.4, R:1, F:0.57
- P:0.2, R:0.8, F:2
- P:1, R:0.4, F:1

Precision = TP/(TP+FP)=4/(4+6) = 0.4

Recall = TP/(TP+FN)=4/(4+0) = 1

F-score = 2*P*R/(P+R) = 2*0.4*1/(0.4+1)=0.4/1.4=0.57

Unanswered

Question 2

0 / 1 pts

You have built a model which detects whether a patient has cancer or not. Your model has a high Precision, but low Recall. Now, which of the following statement(s) is CORRECT? There might be more than one correct answer.

orrect Answer

- [ ] A lot of cancer patients will remain undetected
- [ ] The False Positive rate of the model is high
- [ ] This model should be safe to use

orrect Answer

- [ ] A patient who is tested positive result will likely indeed have cancer

- A lot of cancer patients will remain undetected because a low Recall means there will be a lot of False Negatives.
- High precision means that the false positive rate is low, i.e., that most predicted positives are **true** positives
- The fact that many cancer cases remain undetected indicates that the system is **not** safe to deploy

Unanswered

Question 3

0 / 1 pts

Which statement is TRUE about evaluation? There might be more than one correct answer.

- [ ] Train and test subsets are allowed to overlap in evaluation.

orrect Answer

- [ ] The number of partitions in Cross-validation influences on evaluating the performance of a classifier.

orrect Answer

- [ ] Cross-validation reduces the effect of random spliting of data into train-test subsets in comparison with Holdout approach.

- [ ] Accuracy is always the best metric to evaluate the performance of classifiers.

- [ ] Using train data for evaluating the performance of a classifier returns worse value than using Holdout subset.