

In-Class-2

Madhu Peduri

1. What is the k value in "k-fold cross-validation"?

A. $K = 3$

2. Create a confusion matrix for the test results.

Predicted	Actual			
		Cat	Dog	Fox
	Cat	3	1	0
	Dog	3	3	2
	Fox	1	0	2

3. Show the formulas and calculate the value of the following metrics:

Accuracy = $TP / (TP + FP + TN + FN)$

Precision = $TP / (TP + FP)$

Recall = $TP / (TP + FN)$

a. Accuracy = $8 / 15$

b. $P_{cat} = 3/4$

c. $P_{dog} = 3/8$

d. $P_{fox} = 2/3$

e. $R_{cat} = 3/7$

f. $R_{dog} = 3/4$

g. $R_{fox} = 2/4 = 1/2$

h. $F1_{cat} = 6/11$

i. $F1_{dog} = 6/12 = 1/2$

j. $F1_{fox} = 4/7$

Metrics	Classes			
		Cat	Dog	Fox
	Precision	3/4	3/8	2/3
	Recall	3/7	3/4	1/2
	F1	6/11	1/2	4/7