Person Not Person

|  |  |
| --- | --- |
| TP 2  if i predicted a person correct | FP 1  if I say someone is a person and they are not, |
| FN 1  if someone is a person and I didn't not predict it | TN 1  if it is not a person and I did not predict it |

Person

=3

Not Person

=2

=2

=3

I take a random **sample of 2** cartoon characters, 2 real persons, 1 pronoun, which is a total of 5. Of these persons, **4 actually are real**. I **predicted 5** total real persons, **4** of which are **actually persons.**

I predicted 5 persons so our “predicted persons row” should add up to 5. We know that 4 of the 5 were indeed persons, so we can put 4 in the predicted Person actual person spot, aka a True Positive.

1. Accuracy (all **correct** / all) = TP + TN / TP + TN + FP + FN

(2 + 1) / (2+1+1+1) = 3 / 5 = 0.60 or **60% Accuracy**

1. Precision (**true** positives / **predicted** positives) = TP / TP + FP

2 / (2 + 1) = 2 / 3 = 0.66 or ***66% Precision***

1. Recall (**true** positives / all **actual** positives) = TP / TP + FN

2 / (2 + 1) = 2 / 3 = 0.66 or ***66% Recall***

1. F1 Score = 2\*(Recall \* Precision) / (Recall + Precision)

F1 Score = 2\*(0.66\*0.66)/(0.66+0.66)= 0.4356/1.32= 0.66 or 66%

1. In simple terms, **confusion matrix** is a summary of **prediction** results on a classification problem. The number of correct and incorrect **predictions** are summarized with count values. Since Recall and Precision came with the highest number, those two are the answers.