A screenshot of a computer

Description automatically generated

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1.PRECISION:

|  |  |  |
| --- | --- | --- |
|  | 0 | 1 |
| 0 | 82 | 3 |
| 1 | 24 | 25 |

A black and white image of a person with a blue and white shirt

Description automatically generated with medium confidence

What is the % of correct classification of (0) to sum of classified as(0) and wrongly classsified as (0) in the test set?

* Precision = TruePositives / (TruePositives + FalsePositives)

Precision of 0= T**(0)/T(0)** +**F(1)**

=82/(82+24)

=82/106= 0.7735849057

=77%

What is the % of correct classification of (1) to sum of classified as(1) and wrongly classsified as (1) in the test set?

Precision of 1= T**(1)/T(1)** +**F(0)**

=25/(25+3)

=2 5/28= 0.8928571429

=89%

2.RECALL:

|  |  |  |
| --- | --- | --- |
|  | 0 | 1 |
| 0 | 82 | 3 |
| 1 | 24 | 25 |

A black text with black letters

Description automatically generated with medium confidence

What is the % of correct classification of (0) to the total input of 0 in the test set?

* Recall = TruePositives / (TruePositives + FalseNegatives)

Recall of 0= **T(0)/T(0)** +**F(0)**

=82/(82+3)=0.9647058824

=96%

What is the % of correct classification of (1) to the total input of 1 in the test set?

Recall of 1= **T(1)/T(1)** +**F(1)**

=25/(25+24)

=25/49= 0.5102040816

=51%

3.F1 Score:

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Description automatically generated

* F-Measure = (2 \* Precision \* Recall) / (Precision + Recall)

F1 score of 0=2\*Recall\*Precision/Recall+Precison

=2\*0.96\*0.77/0.96+0.77

=0.854566474

=86%

F1 score of 1=2\*Recall\*Precision/Recall+Precison

=2\*0.51\*0.89/0.51+0.89

=0.6484285714

=65%

4.ACCURACY:

ACCURACY= T(0)+T(1)

T(0)+T(1) +F(0)+F(1 )



= 82+25/82+3+25+24

= 107/134=0.7985074627

= 80%

5.MACRO AVERAGE:



Precision= Precision(0)+\_Precision(1)

2

= 0.77+0.89/2

=0.83

Recall= Recall(0)+Recall(1)

2

= 0.96+0.51/2

=0.74

F1 Measure= F1(0)+\_F1(1)

2

=0.86+0.65/2

=0.75

6.Weighted Average:



Precision formula:

Precision(0)\*Total(0)in test set/Total input of the test set+Precision(1)\* Total(1)in test set/Total input of the test set

Accuracy

77\*85/134+89\*49/134

0.80

=48.8432835814+32.5447761202/0.80

=81.3880597016

=0.82%

Recall Formula:

Recall(0)\*Total(0)in test set/Total input of the test set+Recall(1)\* Total(1)in test set/Total input of the test set

Accuracy

= 96\*85/134+51\*49/134

0.80

=79.54478

=0.80%

F1 Formula:

F1(0)\*Total(0)in test set/Total input of the test set+F1(1)\* Total(1)in test set/Total input of the test set

Accuracy

F1 Measure=86\*85/134+65\*49/134

0.80

=78.3209

=0.78%