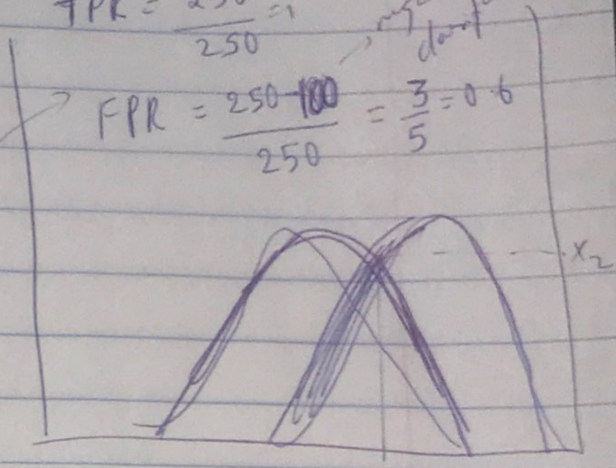
For Threshold-2 = 0.3

ROC Curve

$TPR = \frac{250}{250} = 1$

negative but classified as +ve

$FPR = \frac{250 - 100}{250} = \frac{3}{5} = 0.6$



$X_2 > X_1$

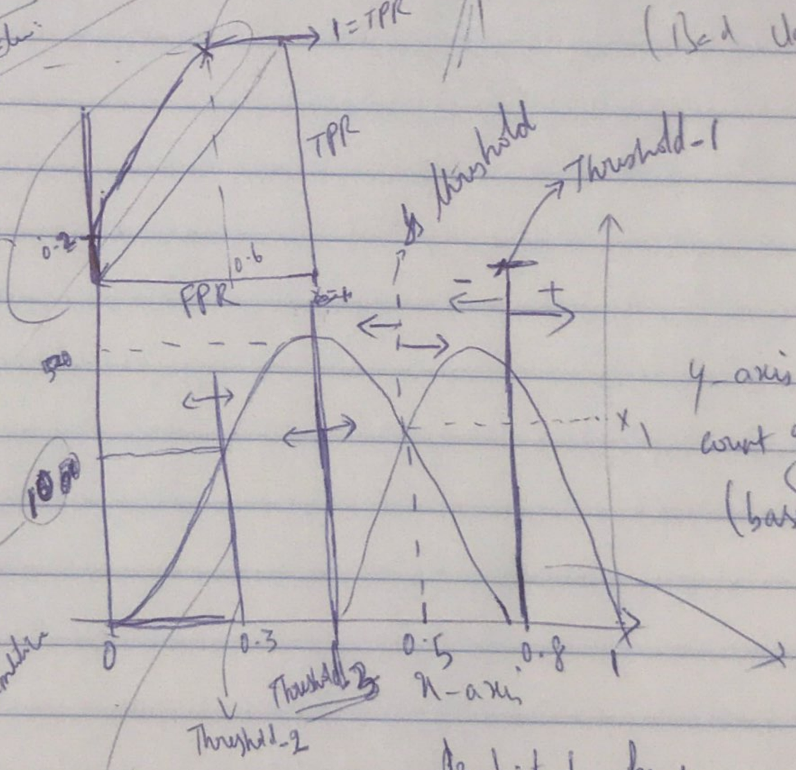
(Bad classifier)

$0 < = < 1$

$TPR = \frac{\text{True Posit}}{\text{all positive}} \rightarrow (1)$

$FPR = \frac{\text{false posit}}{\text{all negative}}$

This curve is calculated for all thresholds.



y-axis count of observations (based on true y-value)

classify: 1

classify: 0

Predicted probs

No. of observations at threshold 0.3 is 50 (cumulative) & for thresh < 0.3 = say 100

→ In the above Example, threshold = 0.5 does a Good job.

For Threshold-1 ⇒ 50 as 1, 450 as 0

from (1) ⇒ $TPR = \frac{50}{250} = (0.2)$

(2) ⇒ $FPR = \frac{0}{250} = 0$