

# LR confusion matrix

Sunday, June 7, 2020

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True

predict { 0 1

TN	FN
FP	TP

precision

Recall

$$Acc = \frac{TN + TP}{(TN + TP + FP + FN)}$$

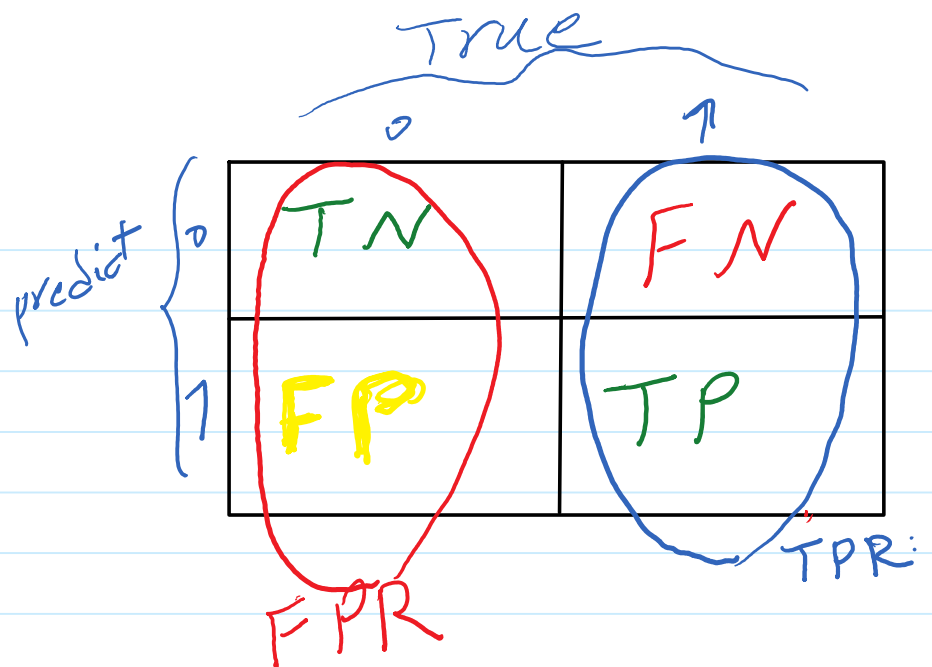
precision :  $\frac{TP}{TP + FP}$

$$Recall = \frac{TP}{TP + FN} = TPR$$

# LR ROC

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6:35 PM



- calculate TPR & FPR for different probability thresholds
- plot FPR vs. TPR

FPR

$$TPR = \frac{TP}{TP + FN} : \text{Recall}$$

$$FPR = \frac{FP}{FP + TN}$$

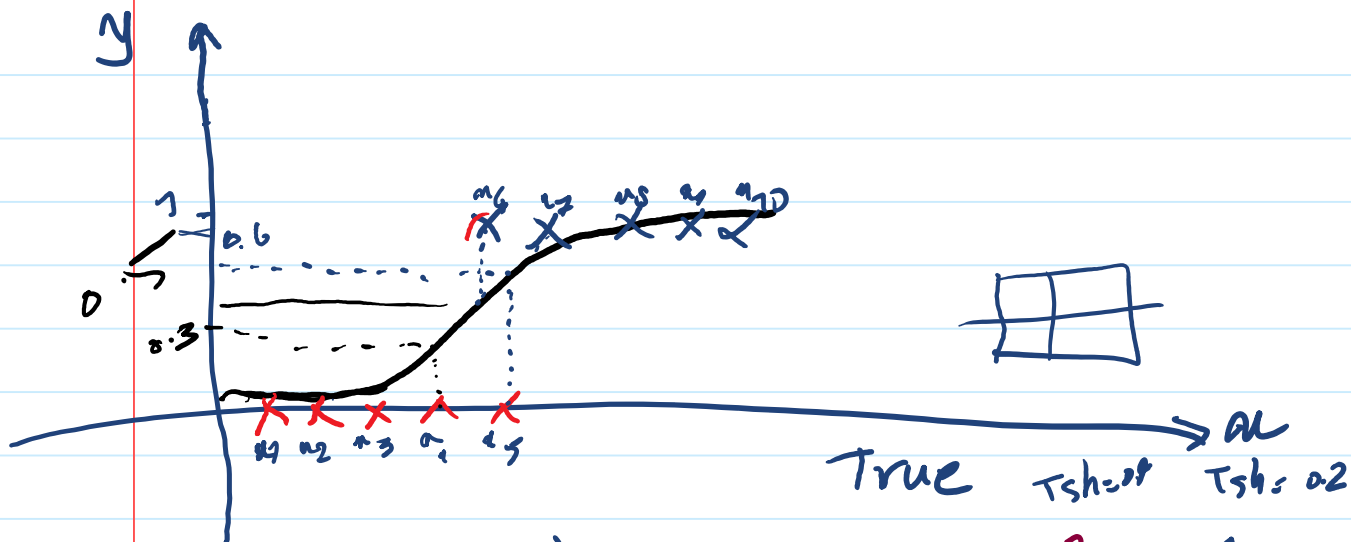
AUC ROC

AUC  $\rightarrow$  1 ✓✓✓

# LR ROC

Sunday, June 7, 2020

6:39 PM



	True	Tsh=0.5	Tsh=0.2
$p(x_1)=0.3$	0	0	1
$p(x_2)=0.4$	0	0	1
$p(x_3)=0.5$	1	0	1
$p(x_4)=0.6$	1	0	1
$p(x_5)=0.7$	1	0	1
$p(x_6)=0.8$	1	1	1
$p(x_7)=0.9$	1	1	1
$p(x_8)=0.91$	1	1	1
$p(x_9)=0.92$	1	1	1

