Notes, Mar 24th, 2021

dataset 5 elements

true data   predictions (logistic) prob(1)

$$\begin{pmatrix} 0 \\ 1 \\ 0 \\ 0 \\ 1 \end{pmatrix} \qquad \begin{pmatrix} 0.6 \\ 0.8 \\ 0.9 \\ 0.2 \\ 0.5 \end{pmatrix}$$

if threshold = 0.55 then $\Downarrow$

$$\begin{pmatrix} 1 \\ 1 \\ 1 \\ 0 \\ 1 \end{pmatrix} \Rightarrow$$

threshold $\uparrow$

$\Downarrow$

\# positives $\downarrow$

$\downarrow$

\# TP, \#FP $\downarrow$

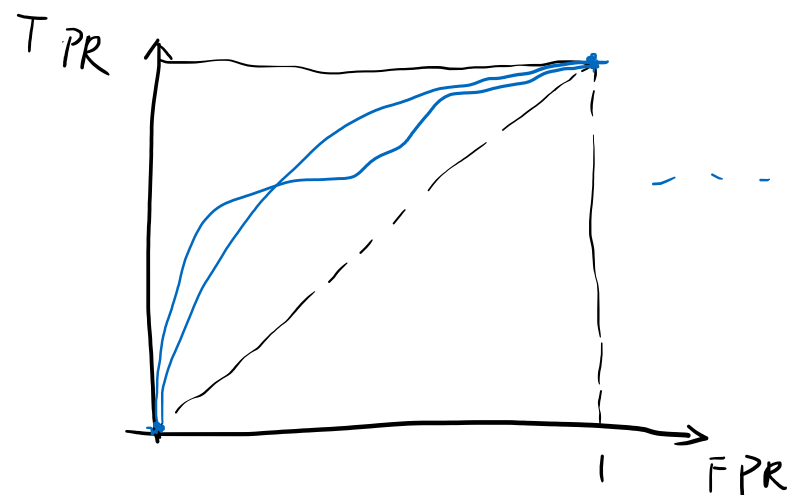$\Downarrow$

TPR   FPR $\downarrow$

$= 0.75$ then $\begin{pmatrix} 0 \\ 1 \\ 1 \\ 0 \\ 0 \end{pmatrix}$

if threshold = 0.95 => vector of 0 => TPR=FPR=0

$= 0.05$ => vector of 1 => TPR=FPR=1

threshold decreases.