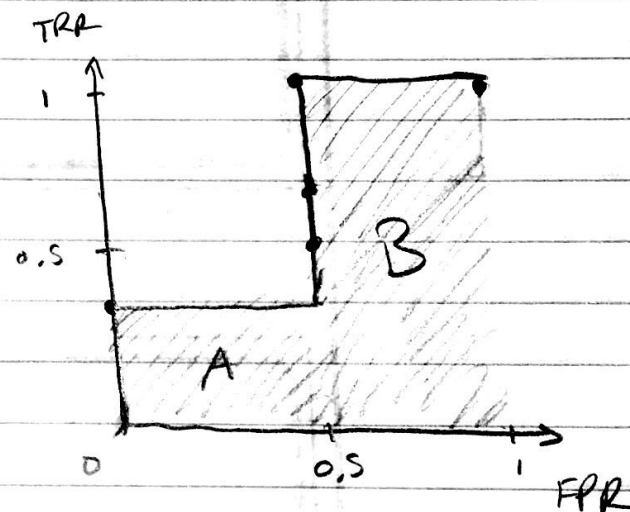


Connor Watson  
Lab9 (HW)

3)

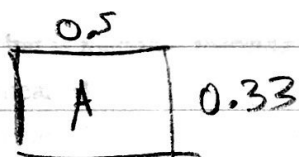
ID	Pred Val	Sample Label	Thresholds				
			0.9	0.6	0.5	0.4	0.3
1	0.9	1	1	1	1	1	1
2	0.5	1	0	0	1	1	1
3	0.4	1	0	0	0	1	1
4	0.6	0	0	1	1	1	1
5	0.3	0	0	0	0	0	1

Threshold	TP TP+FN	TPR	FPR	FP FP+TN
0.9	$\frac{1}{1+2} = \frac{1}{3}$	$\frac{1}{1+2} = \frac{1}{3}$	0	
0.6	$\frac{1}{1+1} = \frac{1}{2}$	$\frac{1}{1+1} = \frac{1}{2}$	$\frac{1}{1+1} = \frac{1}{2}$	
0.5	$\frac{2}{2+1} = \frac{2}{3}$	$\frac{2}{2+1} = \frac{2}{3}$	$\frac{1}{1+1} = \frac{1}{2}$	
0.4	$\frac{3}{3+0} = 1$	$\frac{3}{3+0} = 1$	$\frac{1}{1+0} = 0.5$	
0.3	$\frac{3}{3+0} = 1$	$\frac{3}{3+0} = 1$	$\frac{2}{2+0} = 1$	



$$> 0.5 \rightarrow 1$$

$$< 0.5 \rightarrow 0$$



$$0.5(0.33) + 0.5(1) = 0.165 + 0.5 \approx 0.665$$