CS 66: Machine Learning

Prof. Sara Mathieson

Spring 2019

Lab 5: in-lab notes

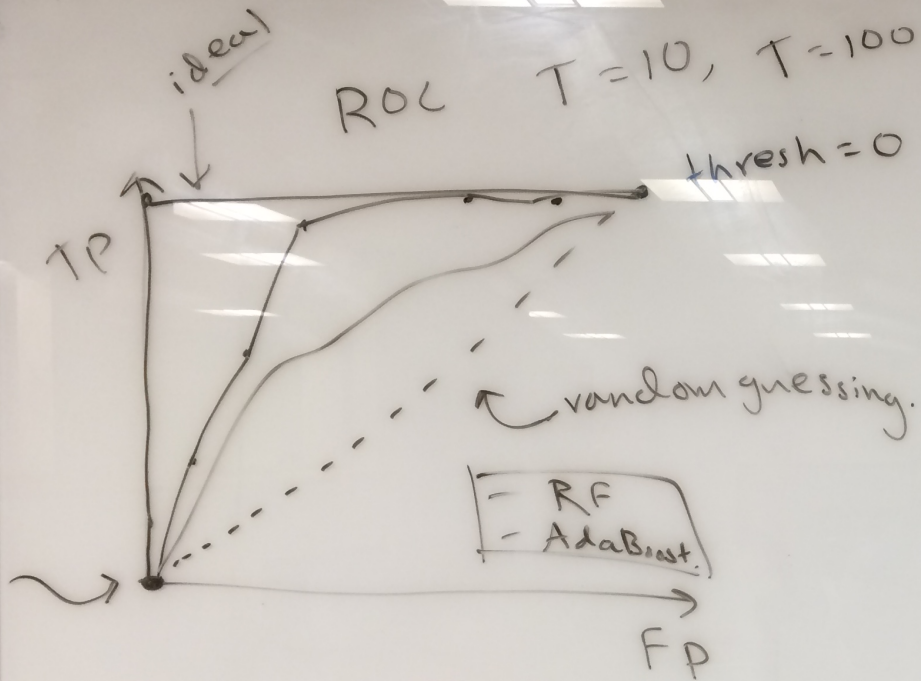# Creating a ROC curve using probability thresholds

threshold = 0.25

$P(y=1|\hat{x}) \geq 0.25 \rightarrow +1$ (poisonous)

$P(y=1|\hat{x}) < 0.25 \rightarrow -1$ (edible)

vary threshold (for testing only)

$$[\underset{\text{all}}{0}, 0.1, 0.2, \ldots 0.9, \underset{\text{none}}{1}]$$

ROC $\quad$ T=10, $\quad$ T=100

ideal

TP

thresh=0

random guessing.

= RF
= AdaBoost.

FP

$P(Y=c \mid X_j = v)$

$P(Y=c)$

$P(X_j = v)$

weighted