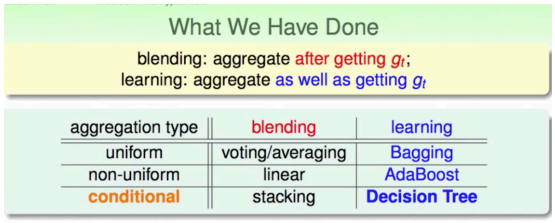
发件人：**Yulin Wu** yw4923@nyu.edu
主题：
日期：2020年9月9日 下午7:04
收件人：

Decision Tree

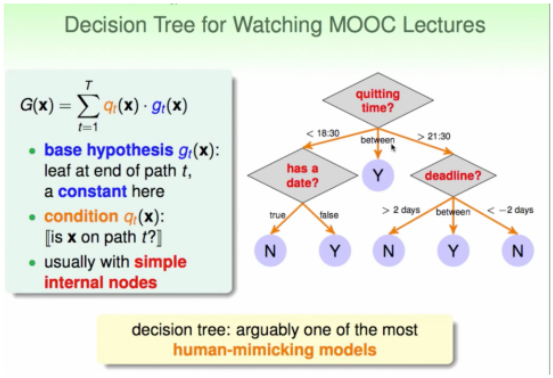
2020年9月8日 星期二
下午3:32



conditional: $\sum_{(t=1)}^{T} \alpha_t(x) g_t(x)$, alpha_t 和 x 有关系, 那么使用非线性gt的combination就行

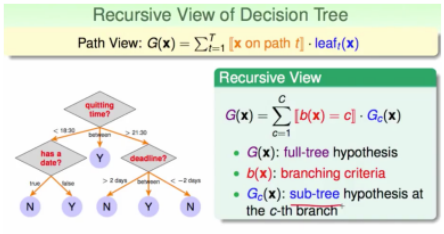
learning：原本不知道有哪些小g，我们要学习这些小g
bagging: 用bootstrap将我们的数据变成不一样的副本，最后再uniform地合起来
adaboost: 放大错误集的权重，且同时learn alpha(不同的票数)

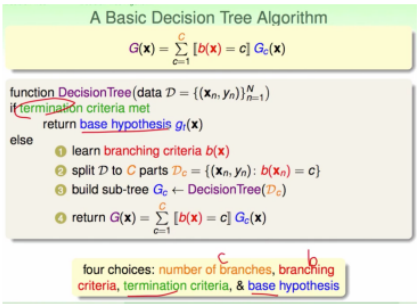
Decision Tree：决策树



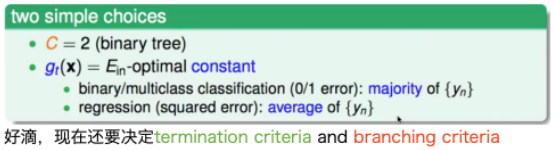
决策树是一个集成模型。
gt(x)就是我们之前常说的基础模型，g_t(x) = 0(No) or 1(yes).
q_t(x)是权重，conditional：给定了x =【quitting time，has a date, deadline】的情况。

将树拆分：



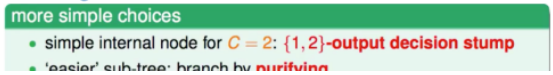


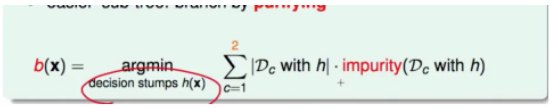
cart : bi-branching by purifying



好滴，现在还要决定termination criteria and branching criteria

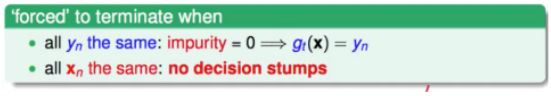
branching criteria:



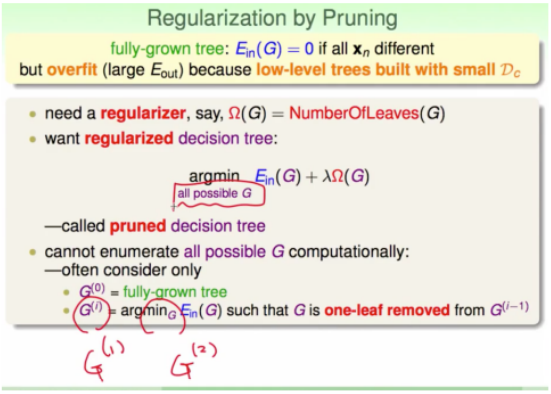


| D_c with h|是资料的权重，如：资料的大小比较大的话，这个资料更重要

termination criteria:

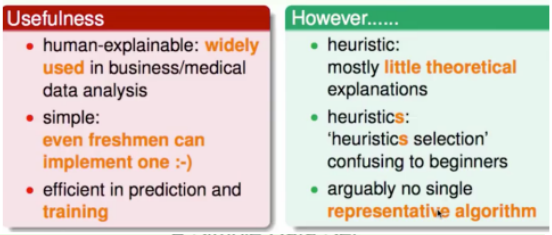


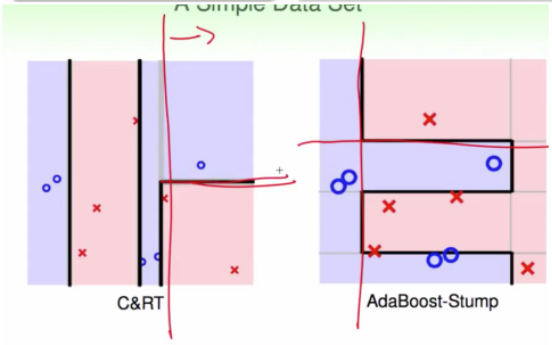
regularization (剪枝)

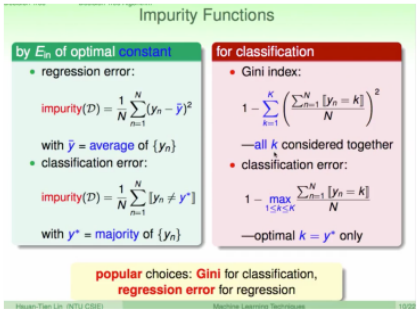


当数据缺失的时候，可以使用替代的feature

优缺点







but enumerate all possible G is computationally complicated
so 使用后置剪枝：先fit出最好的G，再摘掉一片叶子，再摘掉第二片叶子。。。

已使用 OneNote 创建。