

where can I ski?

⇒ cannot use a simple linear model for this kind of data...

└→ decision tree

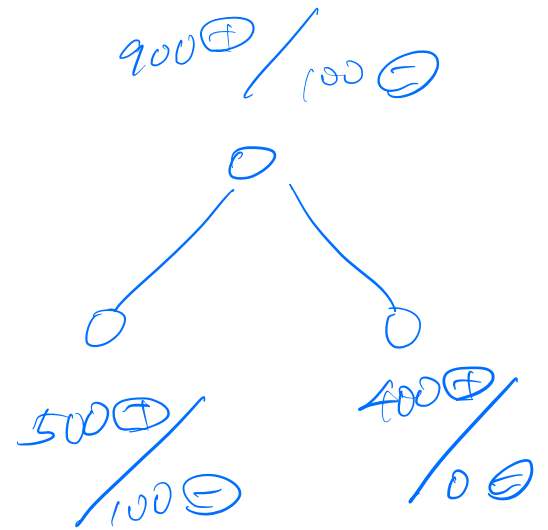
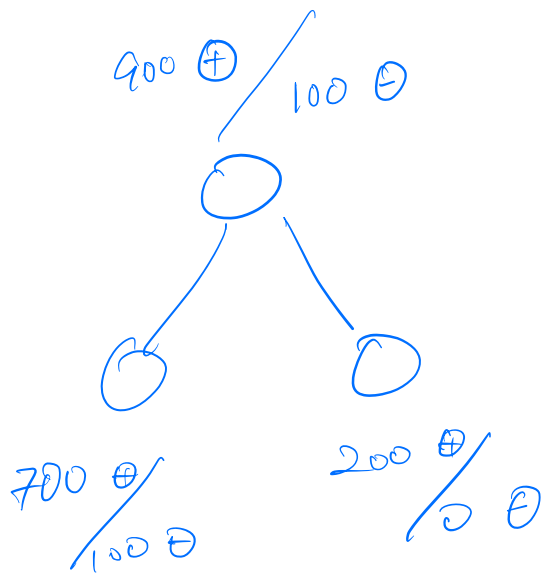
training not that slow (faster than neural network)

△ how do select

features on node

& value

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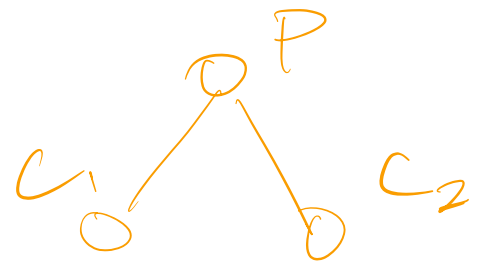


bad partition

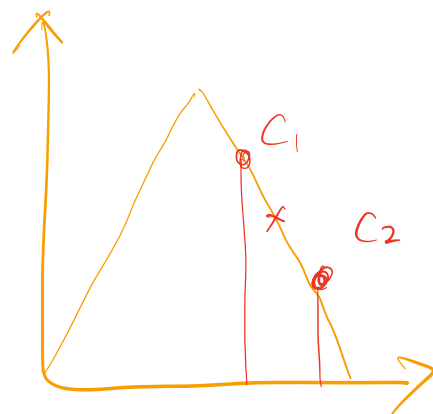
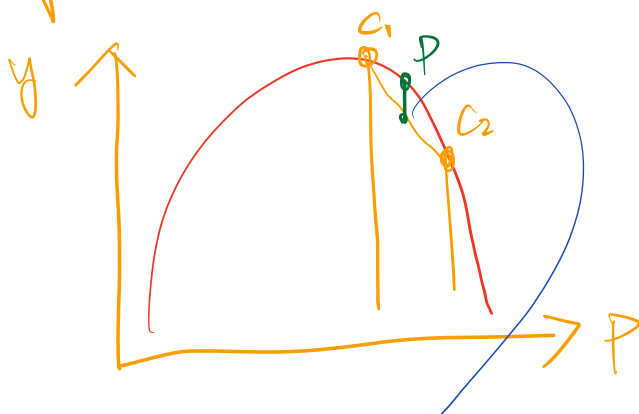
⇒ What kind of metric to be designed for better partition

maximum entropy

$$H(S) = - \sum_{C=1}^C P(C) \log P(C)$$



Why we use entropy?



1. Information gain
 2. Gini $1 - \sum p^2$

entropy low
 to judge whether the data is a good split or not

We can also use regression tree

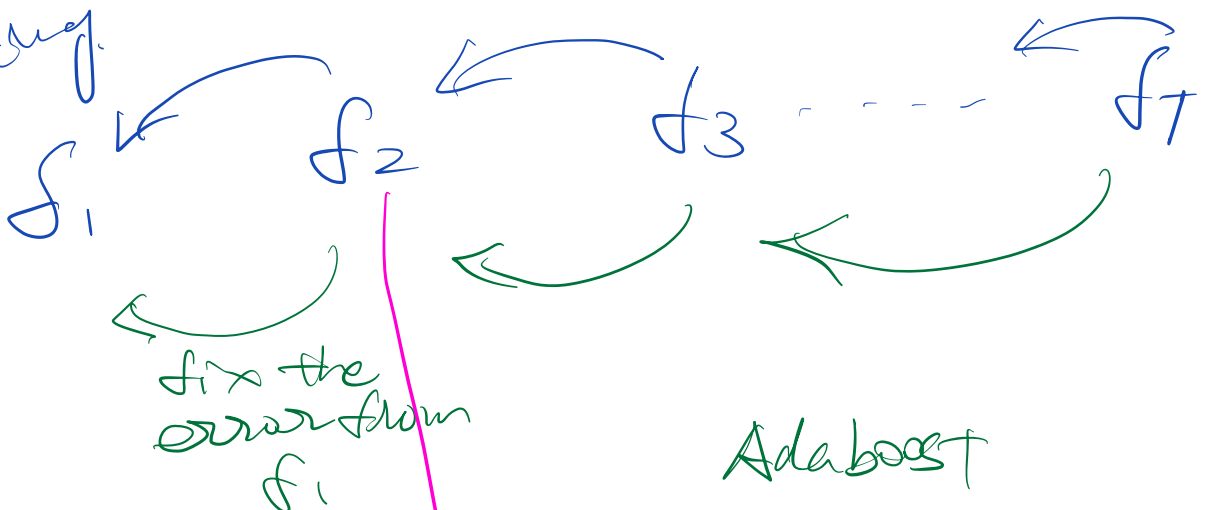
f_1, f_2, \dots, f_T

$\sum_{i=1}^T w_i f_i$: Bagging

P18: usually : give probability value.

Difference between Boosting & Bagging

Boosting



↓ model to
predict the error,
cannot use independently.