

Boosting Algorithm

Why Boosting?

In Machine Language, complex problems are sloved with the help of Boosting Algorithms.

How Boosting Algorithm Works?

steps

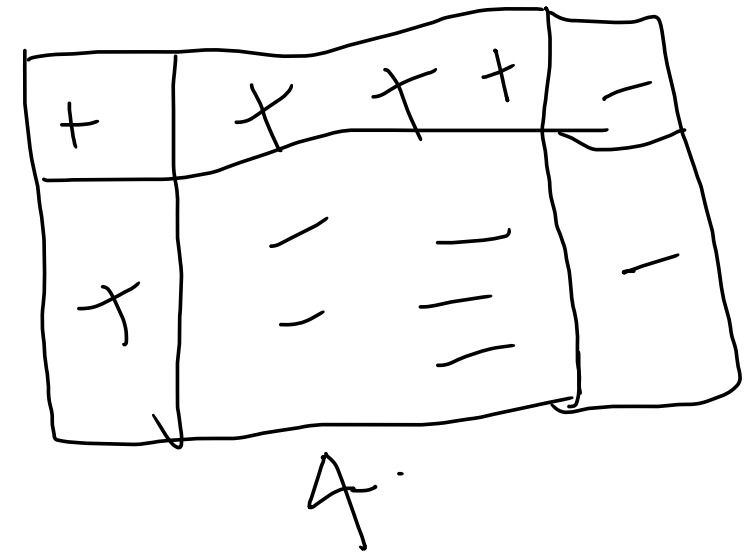
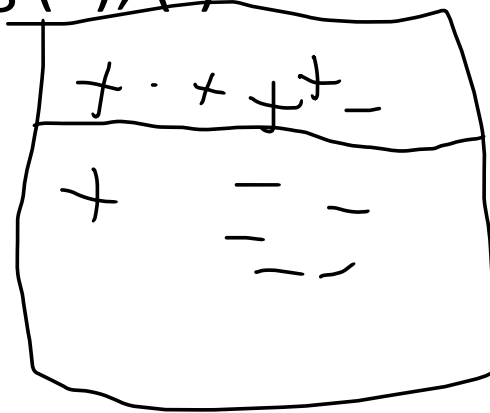
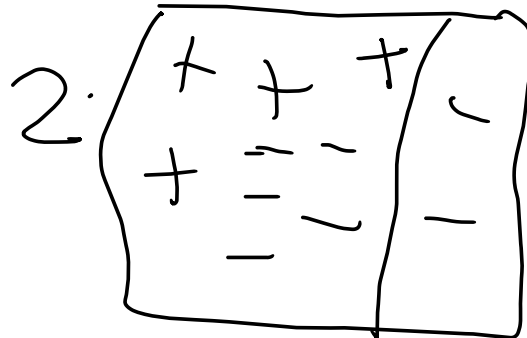
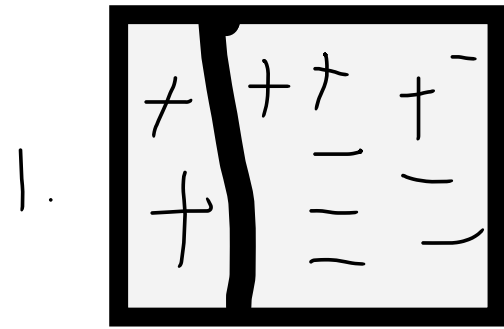
1. Analyse and draw decision stumps
2. False Prediction higher weightage
3. Repeat step 2 until the reight prediction

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Example. Classifying (+), (-)



Types of Boosting

1. Ada boost
2. Gradient boost
3. XG boost
4. LG boost
5. Cat boost

Adaptive Boost

1. Some work as normal boosting algorithm
2. Transforming weak learners into strong learners
3. By giving incremental weight concepts
4. Used for both classification and regression problems

Ada Boost Algorithm

- Sample weights create
- Stump creation

(stumps is nothing but a decision tree with just 2 leaf nodes, with one depth)

- Stump selection
- Calculate total error
- Calculate performance say
- Update weights

