What is information theory? (Khan Academy)

<https://youtu.be/d9alWZRzBWk>

Information theory (Wikipedia)

<https://en.wikipedia.org/wiki/Information_theory>

Mutual information (Requires some prior knowledge to digest)

<https://www.youtube.com/watch?v=U9h1xkNELvY>

The mutual information calculation measures how much the uncertainty of the outcome of a system is reduced given the knowledge of the outcome of another system.

Entropy explained like you’re five. (StatQuest)

<https://www.youtube.com/watch?v=YtebGVx-Fxw>

Expected value of surprise on each observation.

Decision trees (StatQuest)

<https://www.youtube.com/watch?v=_L39rN6gz7Y>

a decision tree first needs to decide upon the class at the root. it does this by calculating the predictive power of each class has on another class. it may use various measures to do this such as Gini impurity or statistical entropy. as you go down the tree from the root, we continue doing these kinds of calculations to decide on what the optimal question regarding a variable is to ask at a given point. at each decision point we go left or right depending on the value of the variable chosen.

Bagging vs. Boosting

https://www.geeksforgeeks.org/bagging-vs-boosting-in-machine-learning/