

# Naive Bayes for Sentiment Analysis: Takeaways



by Dataquest Labs, Inc. - All rights reserved © 2019

## Concepts

- The Naive Bayes classifier figures out how likely data attributes are associated with a certain class.
- The classifier is based on Bayes' theorem, which is

where:

- $A$  and  $B$  are events.
- $P(A|B)$  is a conditional probability. Specifically, the likelihood of event A occurring given the B is true.
- $P(B|A)$  is also a conditional probability. Specifically, the likelihood of event B occurring given the A is true.
- $P(A)$  and  $P(B)$  are the probabilities of observing  $A$  and  $B$  independently of each other.
- Bayes' Theorem describes the probability of an event based on prior knowledge of conditions that might be related to the event.
- Naive Bayes extends Bayes' theorem to handle the case of multiple data points by assuming each data point is independent.
- The formula for the classifier is the following
- To find the "right classification", we find out which classification (  $C$  ) has the highest probability.

## Resources

- [Bayes' theorem](#)
- [Probability theory](#)



Takeaways by Dataquest Labs, Inc. - All rights reserved © 2019