**Naïve Bayes Algorithm Overview**

Naïve Bayes is a probabilistic classification algorithm based on Bayes' theorem[1]. Despite this strong independence assumption, Naïve Bayes performs well in various applications such as text classification, spam filtering, and sentiment analysis. Its advantages include computational efficiency, ease of implementation, and effectiveness with small datasets.

Naïve Bayes remains a fundamental approach in machine learning, often serving as a baseline for classification tasks due to its simplicity and strong theoretical foundation.[[1]](#endnote-1)

**References**

1. *Murphy, K. P. (2012). Machine learning: A probabilistic perspective. MIT Press*.

1. Domingos, P., & Pazzani, M. (1997). On the optimality of the simple Bayesian classifier under zero-one loss. *Machine Learning, 29*(2-3), 103–130. [↑](#endnote-ref-1)