Multinomial Naive Bayes Classifier

Miguel Alcón Doganoc
Universitat Politècnica de Catalunya
Barcelona, Spain
miguel.alcon@est.fib.upc.edu

1 INTRODUCTION

2 ALGORITHM

Now is time to explain the algorithm behind the MNBC. For a better understanding, we divided it in two processes, **fit** and **predict**. In the **fit** stage, the classifier model is build from the input data, while in the **predict** stage, MNBC uses the model to predict an input observation.

Algorithm for **fit**:

Let c_k be a class of observation,
    with $1 \geq k \geq$ number of classes in X
Let t_i be an item of the observations in X,
    with $1 \geq i \geq$ number of unique items in X
Let f_i be the frequency of item t_i within X
Let $f_{i,k}$ be the frequency of item t_i
    within observations of class c_k
Given input X

3 DATA

4 IMPLEMENTATION

5 EXPERIMENTATION

6 CONCLUSIONS