ENGR 421

Homework 2 Naïve Bayes’ Classier

Tümecan Ökke ID: 81105

In this project, I have implemented Naïve Bayes’ Classifier via multivariate methods.

The image dataset include 35000 row and 764 column (26X26 pixels). Label dataset include just one column and 35000 row which show us 5 class of clothes.

After read datasets via pandas library I matched image and label files , I separated train and test dataset with using train\_test\_split library.

Next step was calculation necessary parameters such as means, deviation and priors. With this parameter I calculated score function with formula which in the section 5.7 in the textbook.

As you can see below last step was estimate canfusion matrix via train and test dataset.

y\_truth 1 2 3 4 5

y\_pred\_train

1 3552 45 3 628 8

2 1415 5645 1111 1401 523

3 678 235 4715 3009 947

4 216 60 107 648 160

5 160 6 62 305 4351

y\_truth 1 2 3 4 5

y\_pred\_test

1 548 10 0 132 1

2 259 942 168 231 83

3 106 34 796 481 150

4 44 10 24 108 28

5 22 3 14 57 749