Computer Science & Information Systems

Machine Learning - Lab sheet - Module 4

Exercise 3 - Logistic Regression for multinomial classification

1 Objective

The objective is to

- implement logistic regression for multinomial classification on a given dataset.

2 Steps to be performed

Tool Python3

Libraries required numpy, matplotlib, pandas, sklearn

Input Iris dataset from Python library.

Machine Learning Model Logistic Regression

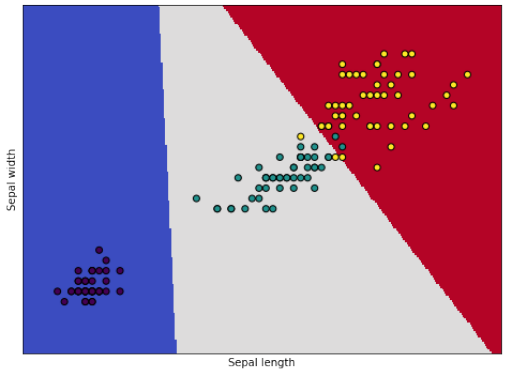
Implementation ML_Lab 9 LogisticRegression_Multiclass.ipynb

Steps .

- Understand the problem.
- Import required Python libraries.
- Import the dataset and convert to as dataframe.
- Preprocess the data. Extract columns as X and y.
- Partition the dataset into training and testing sets.
- Create an object of machine learning model. Specify the parameters if any.
- Train the model using training set.
- Predict the values for testing set using the model.
- Measure the performance of the model.

3 Results

- A logistic regression model is fitted for the given dataset.



4 Observation

- The machine learning model is trained and tested using the given dataset.