Iris Flower Prediction Application Using Logistic Regression

Created project by:

LUKMAN NURHAKIM

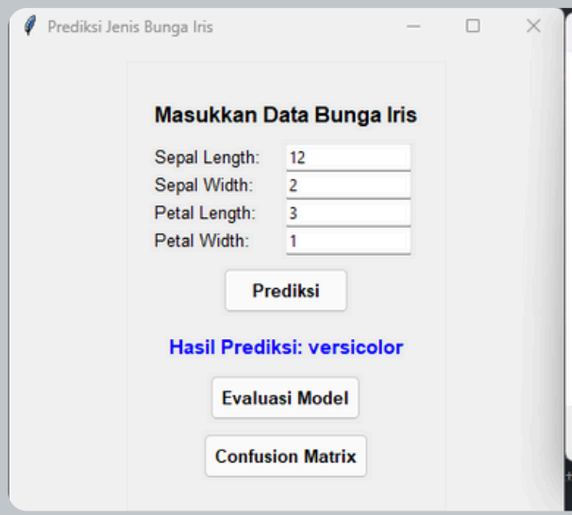
a student of Informatics from Institute of Business and Informatics Kesatuan in Bogor, with a deep interest in Data Science.

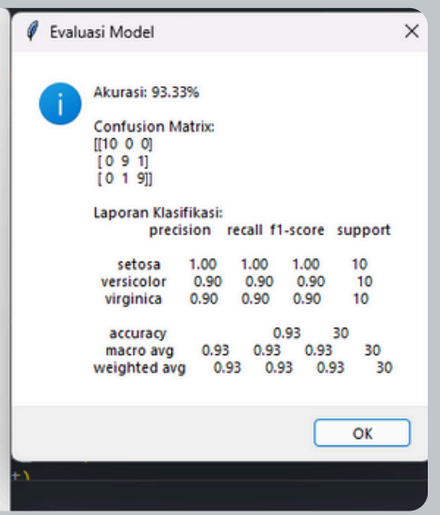
ABOUT PROJECT

This project applies Supervised Learning for Multiclass Classification using Logistic Regression to classify Iris flowers (Setosa, Versicolor, and Virginica) based on four features: sepal length, sepal width, petal length, and petal width. The model is trained on the Iris dataset from Scikit-learn, containing 150 balanced samples. A Tkinter-based GUI allows users to input data and see predictions instantly. The project also includes model evaluation with accuracy, confusion matrix, and classification report, along with visualizations using Seaborn and Matplotlib.

RESULTS


Prediksi Jenis Bunga Iris
Masukkan Data Bunga Iris
Sepal Length:
Sepal Width:
Petal Length:
Petal Width:
Prediksi
Evaluasi Model
Confusion Matrix


Prediksi Jenis Bunga Iris
Masukkan Data Bunga Iris
Sepal Length: 12
Sepal Width: 2
Petal Length: 3
Petal Width: 1
Prediksi
Hasil Prediksi: versicolor
Evaluasi Model
Confusion Matrix


Evaluasi Model
Akurasi: 93.33%
Confusion Matrix:
[[10 0 0]
[0 9 1]
[0 1 9]]
Laporan Klasifikasi:
precision recall f1-score support
setosa 1.00 1.00 1.00 10
versicolor 0.90 0.90 0.90 10
virginica 0.90 0.90 0.90 10
accuracy 0.93 30
macro avg 0.93 0.93 0.93 30
weighted avg 0.93 0.93 0.93 30
OK

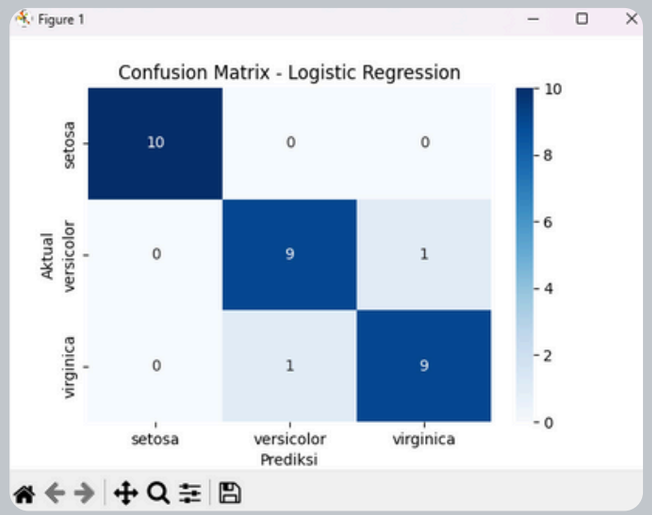


Figure 1
Confusion Matrix - Logistic Regression
Aktual
setosa
versicolor
virginica
Prediksi
10
0
0
0
9
1
0
1
9

CONTACT ME

Email: lukmannurhakim3130@gmail.com | Github: 03lukman | Linkedin: lukman-nurhakim