ML Algorithms

Supervised by:
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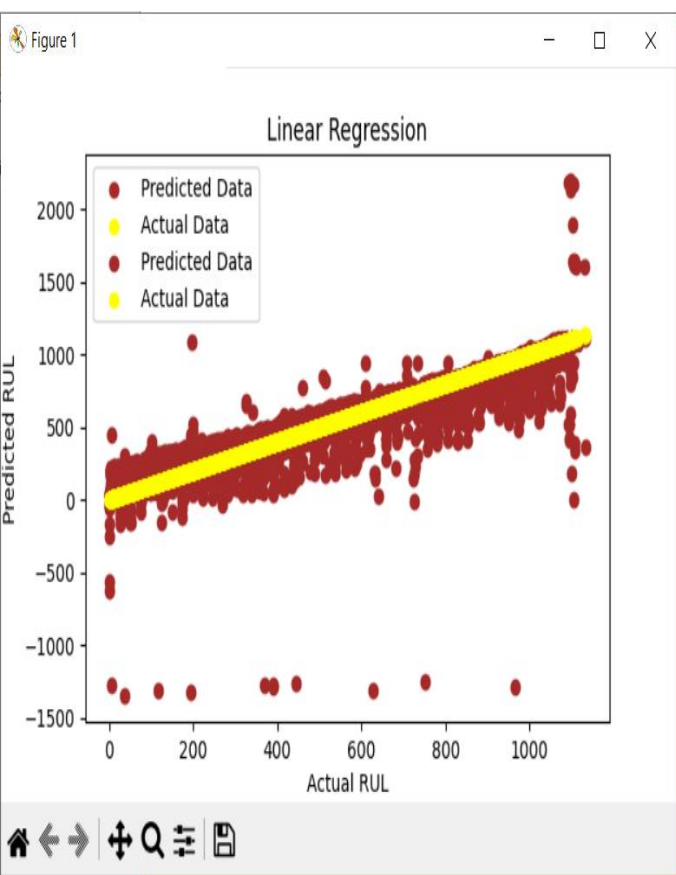# HERE IS OUTPUT UI THAT WE DID TO VISULIZE RESULTS
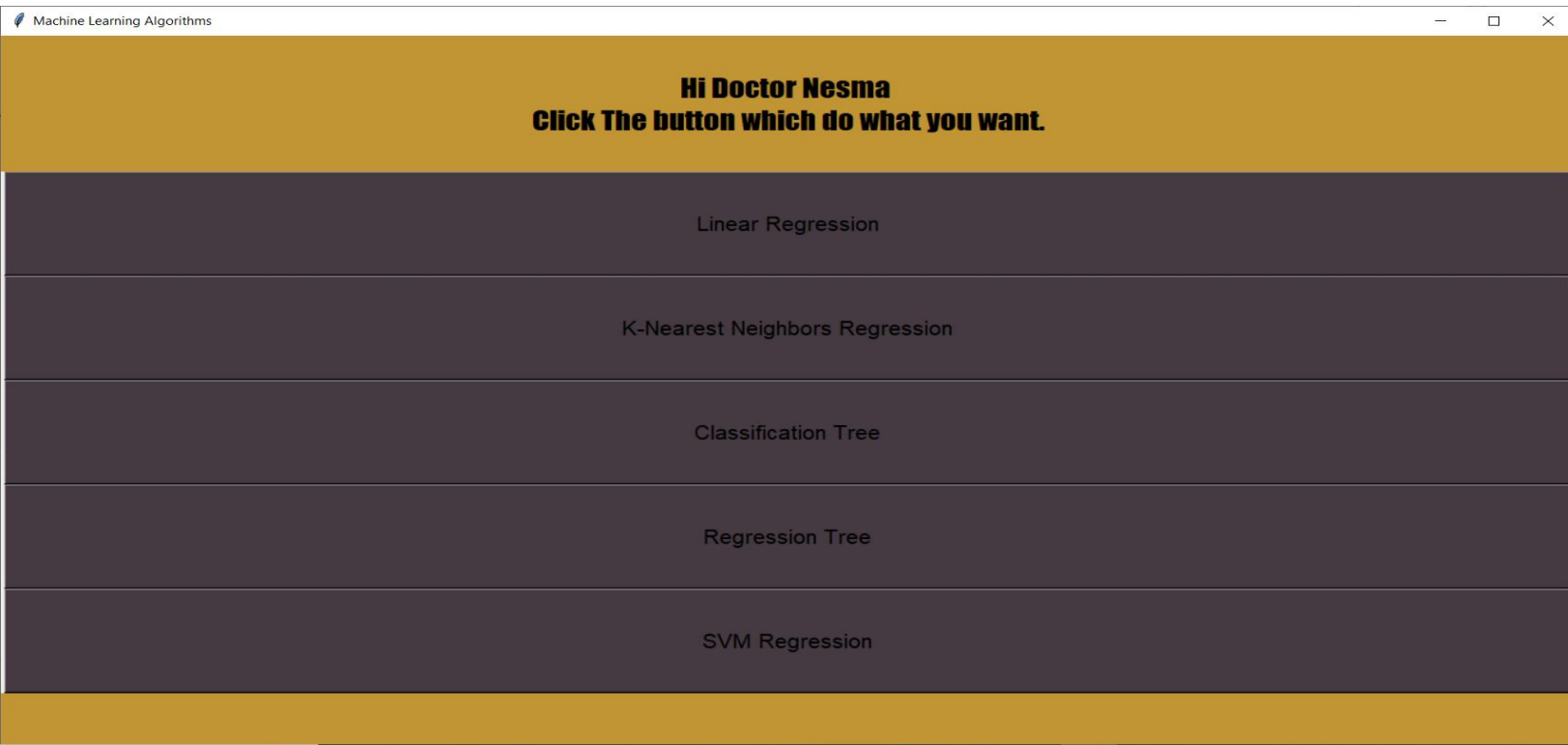
IT'S SIMPLE USER INTERFACE WICH CONTAIONS SOME BUTTONS, EACH BUTTON HAD A ONE ALGORITHM OF REQUIRED ALGORITHMS, BUTTONS BRING'S YOU TO THIS PAGE:
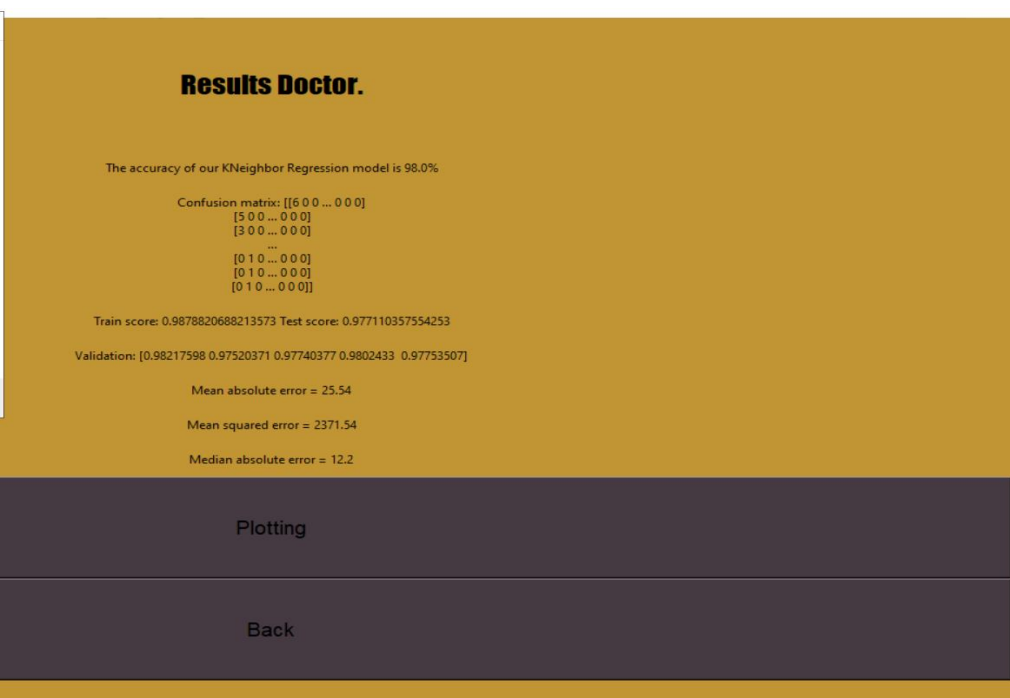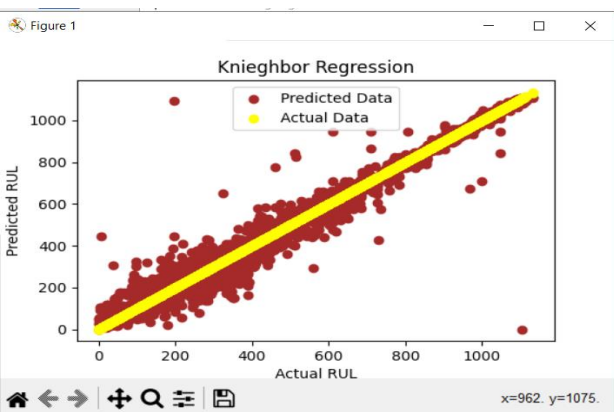
AND HERE IS OUTPUT OF OTHER ALGORITHMS

LINEAR REGRESSION

Figure 1

Linear Regression

- Predicted Data
- Actual Data
- Predicted Data
- Actual Data

Results Doctor.

The accuracy of our Linear Regression model is 76.0%

Confusion matrix: [[6 0 0 ... 0 0 0]
[5 0 0 ... 0 0 0]
[3 0 0 ... 0 0 0]
...
[0 1 0 ... 0 0 0]
[0 1 0 ... 0 0 0]
[1 0 0 ... 0 0 0]]

Train score: 0.8051770456399874 Test score: 0.7586285589141053

Validation: [0.82042884 0.84740466 0.80382528 0.78549523 0.7398471]

Mean absolute error = 94.79

Mean squared error = 25007.95

Median absolute error = 68.48

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SVM REGRESSOR

SVM Regression Results

- Predicted Data
- Actual Data

Actual RUL

Results Doctor.

The accuracy of our SVM Regressor model is 18.0%

Confusion matrix: [[0 6 0 ... 0 0 0]
[5 0 0 ... 0 0 0]
[3 0 0 ... 0 0 0]
...
[0 1 0 ... 0 0 0]
[0 1 0 ... 0 0 0]
[0 1 0 ... 0 0 0]]

Train score: 0.1806941191909367 Test score: 0.1796470546197888

Validation: [0.14239289 0.1437663 0.13029087 0.1451481 0.17426539]

Mean absolute error = 252.47

Mean squared error = 84994.91

Median absolute error = 253.77

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CLASSIFICATION TREE

Machine Learning Algorithms

Results Doctor.

on Tree model is 0.98%The R Square of our Classification Tree model is 0.98%The R Square of our Classification Tree model is 0.98%The R Square of our Classification Tree model is 0.98%The R Square of our Classification Tree model is 0.98%The R Square of our Cl

Confusion matrix: [[4 0 0 ... 0 0 0]
[0 1 0 ... 0 0 0]
[0 0 0 ... 0 0 0]
...
[0 0 0 ... 0 0 0]
[0 0 0 ... 0 0 0]
[0 0 0 ... 0 0 0]]

Train score: 0.9980527526995928 Test score: 0.02947424322889007

Validation: [0.98340514 0.98497443 0.978676 0.9809375 0.98606604]

Mean absolute error = 16.26

Mean squared error = 1576.01

Median absolute error = 3.0

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Machine Learning Algorithms

Results Doctor.

The accuracy of our Regression Tree model is 99.0%

Confusion matrix: [[4 0 0 ... 0 0 0]
[5 0 0 ... 0 0 0]
[6 0 0 ... 0 0 0]
...
[0 1 0 ... 0 0 0]
[0 1 0 ... 0 0 0]
[0 1 0 ... 0 0 0]]

Train score: 0.9999999337035823 Test score: 0.9912324878599204

Validation: [0.9813827 0.98805875 0.99121764 0.98332116 0.98962648]

Mean absolute error = 11.56

Mean squared error = 930.69

Median absolute error = 2.0

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THANKS DOCTOR.