Machine Learning Regression using in r2 value

1.MULTIPLE LINEAR REGRESSION: (R2 Value)=0.93586

2.SUPPORT VECTOR MACHINE:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Hyper  Parameter | Linear  (r value) | Poly  (r value) | Rbf  (r value) | Sigmoid  (r value) |
| 1. | C1.0 | -0.05569 | -0.05710 | -0.05741 | -0.05720 |
| 2. | C10 | -0.03964 | -0.05366 | -0.05680 | -0.05471 |
| 3. | C100 | 0.10646 | -0.01980 | -0.05072 | -0.03045 |
| 4. | C1000 | 0.78028 | 0.26616 | 0.0067 | 0.18506 |

SVM Regression R2 value (linear and hyper parameter (c1000)=0.78028

3.DECISION TREE:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Criterion | Splitter | R value |
| 1. | Squared\_error | Best | 0.9305 |
| 2. | Friedman\_mse | Best | 0.9218 |
| 3. | Poisson | Best | 0.7107 |
| 4. | Absolute\_Error | Best | 0.9511 |
| 5. | Squared\_error | Random | 0.9139 |
| 6. | Friedman\_mse | Random | 0.8707 |
| 7. | Poisson | Random | 0.1281 |
| 8. | Absolute\_Error | Random | 0.6300 |

Decision Tree R2 value (criterion=Absolute\_error, Splitter=best)= 0.9511