To find following machine learning regression method using in r2 value

1. Multiple Linear Regression (R2 value) = 0.9358
2. Support Vector Machine

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Hyper Parameter | Linear  (r value) | RBF  (Non-linear)  (r value) | Poly  (r value) | Sigmoid  (r value) |
| 1 | C10 | -0.0396 | -0.0568 | -0.0536 | -0.0547 |
| 2 | C100 | 0.1064 | -0.0507 | -0.0198 | -0.0304 |
| 3 | C500 | 0.5928 | -0.0243 | 0.1146 | 0.0705 |
| 4 | C1000 | 0.7802 | 0.0067 | 0.2661 | 0.1850 |
| 5 | C2000 | 0.8767 | 0.0675 | 0.4810 | 0.3970 |
| 6 | C3000 | 0.8956 | 0.1232 | 0.6370 | 0.5913 |

1. Decision Tree

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Criterion** | **Splitter** | **r value** |
| 1 | friedman\_mse | best | 0.8943 |
| 2 | friedman\_mse | random | 0.9157 |
| 3 | Squared error | best | 0.9270 |
| 4 | Squared error | random | 0.9343 |
| 5 | absolute\_error | best | 0.9561 |
| 6 | absolute\_error | random | 0.8681 |
| 7 | poisson | best | 0.9102 |
| 8 | poisson | random | 0.8697 |