**R\_Score values for Machine Learning regressions:**

**1. Simple Linear Regression – 0.9740**

**2. Multiple Linear Regression – 0.9358**

**3. Support Vector Machine**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO** | **R\_Score Value** | | | | |
|  | **Hyper Parameter** | **Linear** | **Rbf (Non-Linear)** | **Poly** | **Sigmoid** |
| **1** | **C=0.01** | **0.9335** | **-0.0574** | **-0.0574** | **-0.0574** |
| **2** | **C=1.0** | **0.8950** | **-0.0573** | **-0.0508** | **-0.05749** |
| **4** | **C=10** | **-2.437** | **-0.0558** | **0.0253** | **-0.0576** |
| **5** | **C=5** | **0.476** | **-0.056** | **-0.016** | **-0.0575** |

**4. Decision Tree**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.NO** | **Criterion** | **Max Features** | **Splitter** | **R\_Score Value** |
| **1** | **squared\_error** | **-** | **best** | **0.9335** |
| **2** | **friedman\_mse** | **-** | **best** | **0.9016** |
| **3** | **friedman\_mse** | **-** | **random** | **0.6282** |
| **4** | **absolute\_error** | **-** | **random** | **0.8905** |
| **5** | **absolute\_error** | **-** | **best** | **0.9739** |
| **6** | **poisson** | **-** | **best** | **0.9182** |
| **7** | **poisson** | **-** | **random** | **0.8956** |
| **8** | **poisson** | **sqrt** | **random** | **0.460** |
| **9** | **poisson** | **log2** | **random** | **0.212** |
| **10** | **friedman\_mse** | **log2** | **best** | **0.599** |
| **11** | **friedman\_mse** | **sqrt** | **random** | **0.7447** |
| **12** | **squared\_error** | **None** | **random** | **0.7289** |
| **13** | **squared\_error** | **None** | **best** | **0.9148** |
| **14** | **squared\_error** | **sqrt** | **best** | **0.6535** |
| **15** | **absolute\_error** | **sqrt** | **best** | **0.7562** |
| **16** | **absolute\_error** | **log2** | **best** | **0.7673** |
| **17** | **absolute\_error** | **log2** | **random** | **0.9273** |
| **18** | **absolute\_error** | **None** | **random** | **0.9334** |
| **19** | **absolute\_error** | **None** | **best** | **0.9495** |

**5. Random Forest**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. NO** | **n\_estimators** | **Criterion** | **Max Features** | **R\_Score Value** |
| **1** | **50** | **squared\_error** | **None** | **0.9446** |
| **2** | **50** | **friedman\_mse** | **None** | **0.9388** |
| **3** | **50** | **poisson** | **sqrt** | **0.7208** |
| **4** | **50** | **absolute\_error** | **Log2** | **0.7222** |
| **5** | **60** | **friedman\_mse** | **Log2** | **0.6811** |
| **6** | **100** | **absolute\_error** | **sqrt** | **0.7857** |
| **7** | **70** | **poisson** | **None** | **0.9433** |
| **8** | **100** | **poisson** | **sqrt** | **0.7717** |
| **9** | **50** | **squared\_error** | **Log2** | **0.6830** |