**R2\_Score using Machine Learning Regression method**

**Decision Tree**

Positive Hyper Tuning Parameter at

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | **poisson** | **Random** | **auto** | **0.946285253** |

Negative Hyper Tuning Parameter at

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 11 | **friedman\_mse** | **random** | **sqrt** | **-0.00438311** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No | **criterion** | **splitter** | **max\_features** | **R2 Score** |
| 1 | squared\_error | best | None | 0.926247243 |
| 2 | friedman\_mse | best | auto | 0.912232892 |
| 3 | absolute\_error | best | auto | 0.912232892 |
| 4 | poisson | best | auto | 0.725213172 |
| 5 | **poisson** | **Random** | **auto** | **0.946285253** |
| 6 | absolute\_error | Random | auto | 0.922156011 |
| 7 | friedman\_mse | Random | auto | 0.80902981 |
| 8 | squared\_error | Random | auto | 0.873787644 |
| 9 | squared\_error | Random | sqrt | 0.751895222 |
| 10 | squared\_error | best | sqrt | 0.855082762 |
| 11 | **friedman\_mse** | **random** | **sqrt** | **-0.00438311** |
| 12 | friedman\_mse | best | sqrt | 0.615990766 |
| 13 | poisson | best | sqrt | 0.765632928 |
| 14 | poisson | random | sqrt | 0.130015214 |
| 15 | squared\_error | random | sqrt | 0.75493072 |
| 16 | squared\_error | best | sqrt | 0.374044677 |
| 17 | squared\_error | best | log2 | 0.862880783 |
| 18 | squared\_error | Random | log2 | -0.280392661 |
| 19 | poisson | Random | log2 | 0.181930737 |
| 20 | poisson | best | log2 | 0.1409674 |
| 21 | friedman\_mse | best | log2 | 0.730109299 |
| 22 | friedman\_mse | Random | log2 | 0.753918301 |
| 23 | absolute\_error | Random | log2 | 0.757472843 |
| 24 | absolute\_error | best | log2 | 0.757472843 |