

Insurance_data_r_score Analysis with various Algorithms

| Regression Algorithm | criterion/n_estimators | splitter | r_score | Best one?? |
|----------------------------|-------------------------|-----------------------|--------------------|-----------------|
| Decision_tree | poisson | random | 0.778559307 | |
| Decision_tree | poisson | best | 0.699926721 | |
| Decision_tree | friedman_mse | best | 0.68764324 | |
| Decision_tree | friedman_mse | random | 0.747454709 | |
| Decision_tree | absolute_error | random | 0.691489966 | |
| Decision_tree | absolute_error | best | 0.68924996 | |
| Decision_tree | squared_error | random | 0.680316145 | |
| Decision_tree | squared_error | best | 0.69444049 | |
| Random_Forest | n_estimators=100 | random_state=0 | 0.857655311 | Best one |
| Multiple_Linear_regression | | | 0.786510809 | |

1.) Identify your problem statement

Machine Learning (stage 1)

Supervised Learning (Stage2)

Regression (Stage3)

2.) Tell basic info about the dataset (Total number of rows, columns)

1338 rows × 6 columns

3.) Mention the pre-processing method if you're doing any (like converting string to number – nominal data)

dataset=pd.get_dummies(dataset,drop_first=True)

4.) Develop a good model with r^2 _score. You can use any machine learning algorithm; you can create many models. Finally, you have to come up with final model.

Random_Forest is the best and final model

5.) All the research values (r^2 _score of the models) should be documented.

(You can make tabulation or screenshot of the results.)

Yes documented, shown in above Data format

6.) Mention your final model, justify why u have chosen the same.

Random_Forest is the best and final model, because r^2 _score value 0.85 is coming, so it is best model