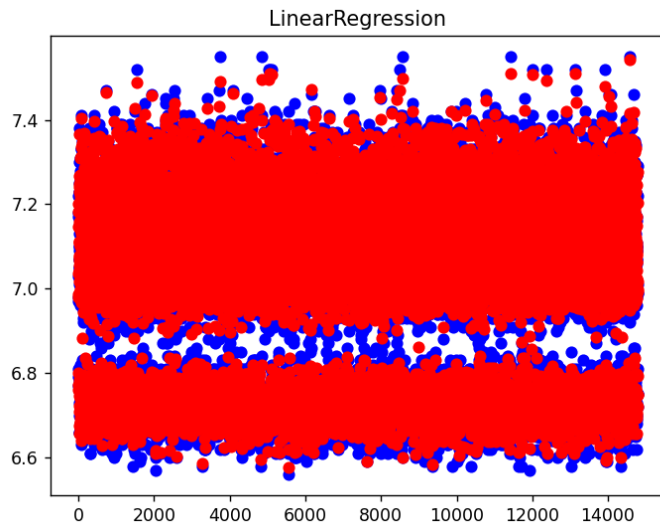# Market prices report

graphical representation of each model on data, With their least score of minimum mean square error sometimes .

linear regression:

mean square error: 0.0663859081668457.

best features:
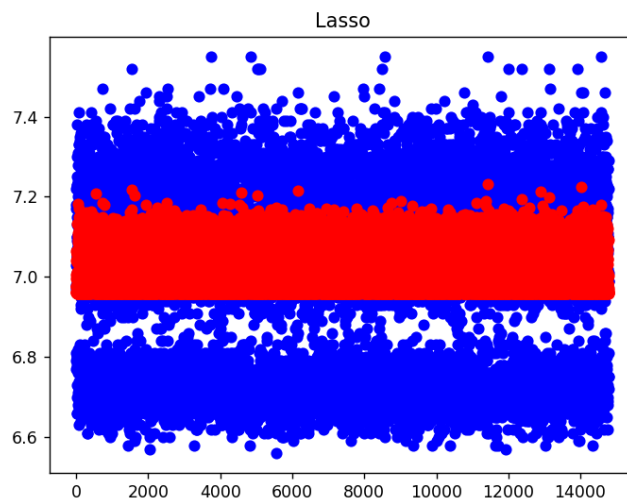
[output own cost, output comp price]

lasso regression:

mean square error: 0.0663859081668457.

(underfitting)
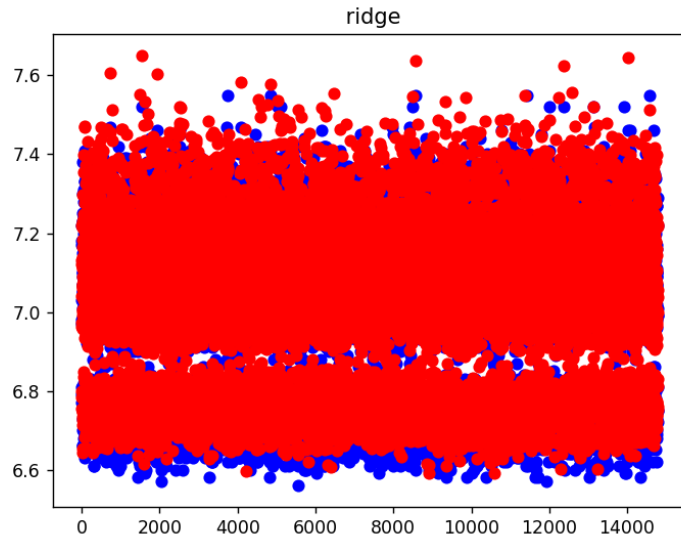
best features:

[Output own profits]

ridge regression:

mean square error:
0.06638594717669895.

best features:

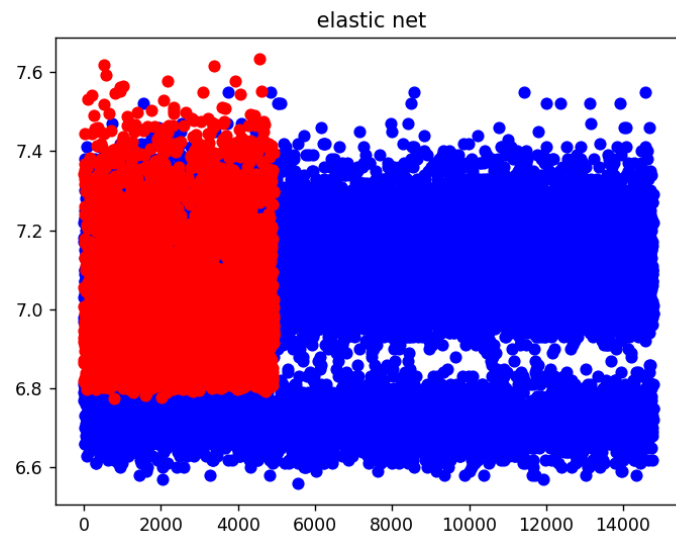**[output own cost, output comp price]**

elastic net regression:

mean square error:
0.12300046352838176.

best features:

[Output own profits]

Those are the most basic ways for prediction but not always the efficient for every scattering data.

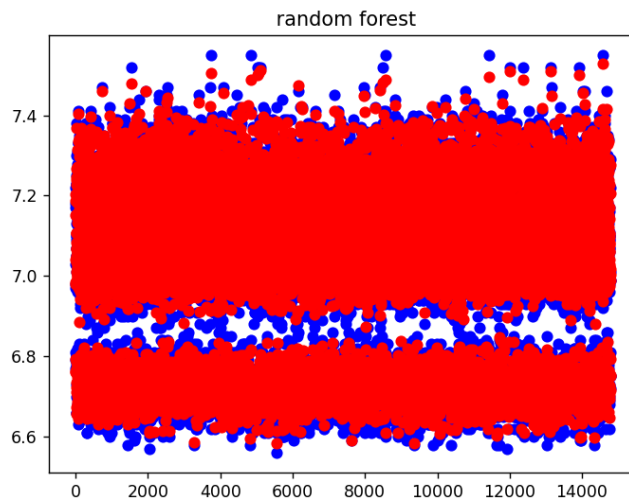Now I will use ensemble models for data they better than normal ways.

Random forest regression:

mean square error:
0.014679371421792334.

best feature:

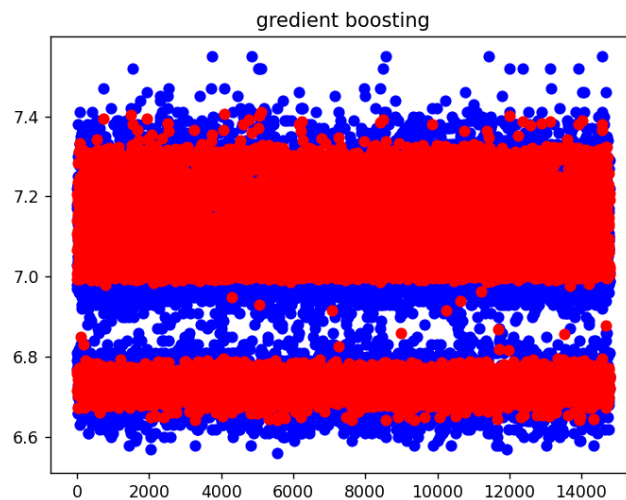**[output comp price, output X]**

Gradient Boosting Regressor

mean square error :
0.05191168906110088.

best feature:
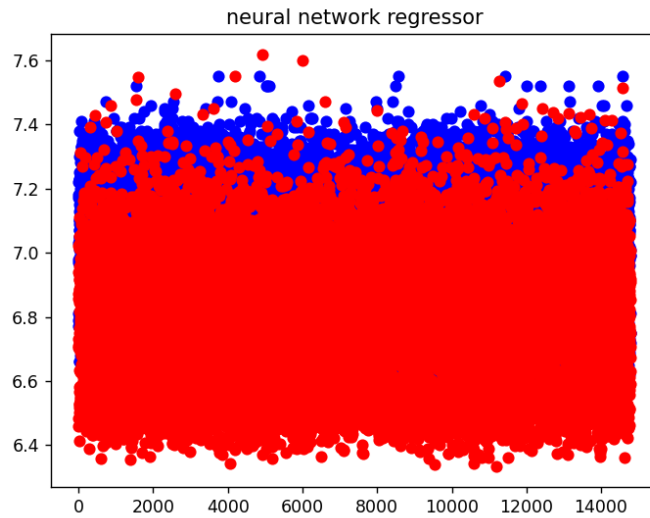
[output comp price, output X]

neural networks regression:

mean square error : 0.22620928336071672.

best feature:

[output comp price, output X, output own profits]

neural network regressor

XG boost regressor:

mean square error: 0.019841374133488583.

best features:

[output comp price]

XG regressor