

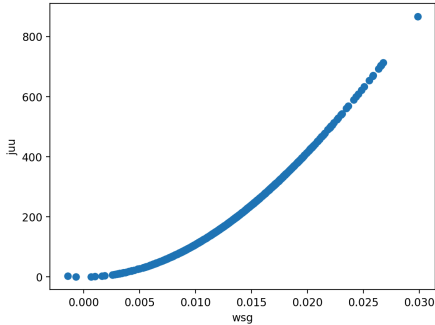
# ML model Data Analysis Dashboard

## Preprocessing features

### Correlation between Features

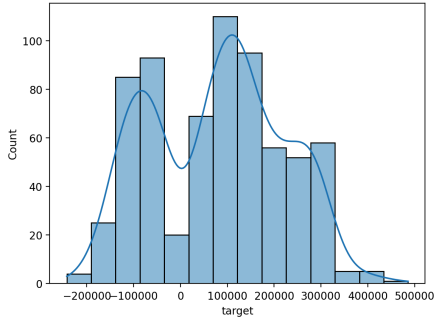
	Variable1	Variable2	Correlation	P-val
1	wsg	juu	0.9741	
7	target	date_day	0.1085	0.00
0	lux	fyt	0.1025	0.00
2	yyz	gox	0.0879	0.02
5	boz	lgh	0.0863	0.02
4	gox	foo	-0.0787	0.04
3	drt	gox	-0.0799	0.03
6	target	date_year	-0.0895	0.01

### Correlated Features



Feature: wsg is redundant and will be removed

### Target Variable



Column date is processed to get date\_year, date\_month, date\_day and date\_dayofweek

## One Hot Encoding and Standard Transformation Training Set

	bar	baz	xgt	qgg	lux	yyz	drt	gox	foo	boz	fyt	lgh	hrt	juu	date_year	date_month	date_day	date_dayofweek
count	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542
mean	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
std	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009	1.0009
min	-0.8485	-0.9781	-3.6724	-2.5446	-2.5466	-2.5296	-21.2424	-2.638	-2.6292	-0.4022	-0.9602	-0.7317	-2.8845	-1.5443	-1.3198	-1.3198	-1.3198	-1.3198
25%	-0.585	-0.9781	-0.6752	-0.5016	-0.7746	-0.5206	0.0924	-0.5515	-0.6862	-0.3565	-0.9602	-0.7317	-0.6993	-0.7941	-1.3198	-1.3198	-1.3198	-1.3198
50%	-0.5302	-0.9781	0.009	-0.0058	-0.0613	0.0391	0.1056	0.0268	-0.0545	-0.2679	-0.9602	-0.7317	-0.0171	-0.1217	-0.188	-0.188	-0.188	-0.188
75%	0.228	1.0224	0.6769	0.4852	0.7775	0.5178	0.1071	0.5105	0.7095	-0.0541	1.0414	1.3666	0.6478	0.6003	0.9439	0.9439	0.9439	0.9439
max	3.1493	1.0224	3.2243	2.3757	1.7626	2.5662	0.1074	2.667	2.9665	10.6037	1.0414	1.3666	3.0341	4.6212	2.0758	2.0758	2.0758	2.0758

# Running Model with all features

The model RandomForestRegressor(n\_estimators=200, random\_state=42) will be stored into the local directory.

Please write a name for your model file:

my\_model\_all\_features

Save First Model

## Model Evaluation

### Model

Params: <bound method  
BaseEstimator.get\_params of  
RandomForestRegressor(n\_estimators=200,  
random\_state=42)>

### CV Training Results

CV RMSE: 41192.78

CV R2: 0.91

Rows in Set: 542

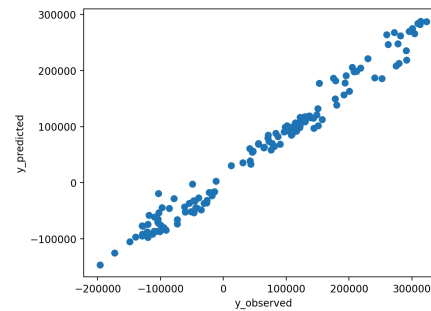
### Testing Results

Test RMSE: 28666.52

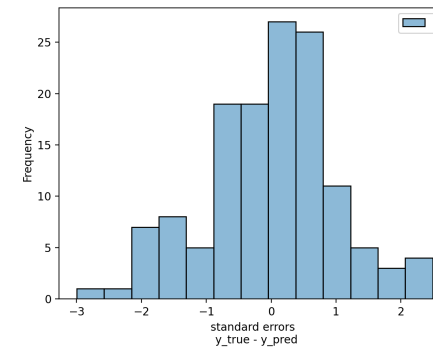
Test R2: 0.95

Rows in Set: 136

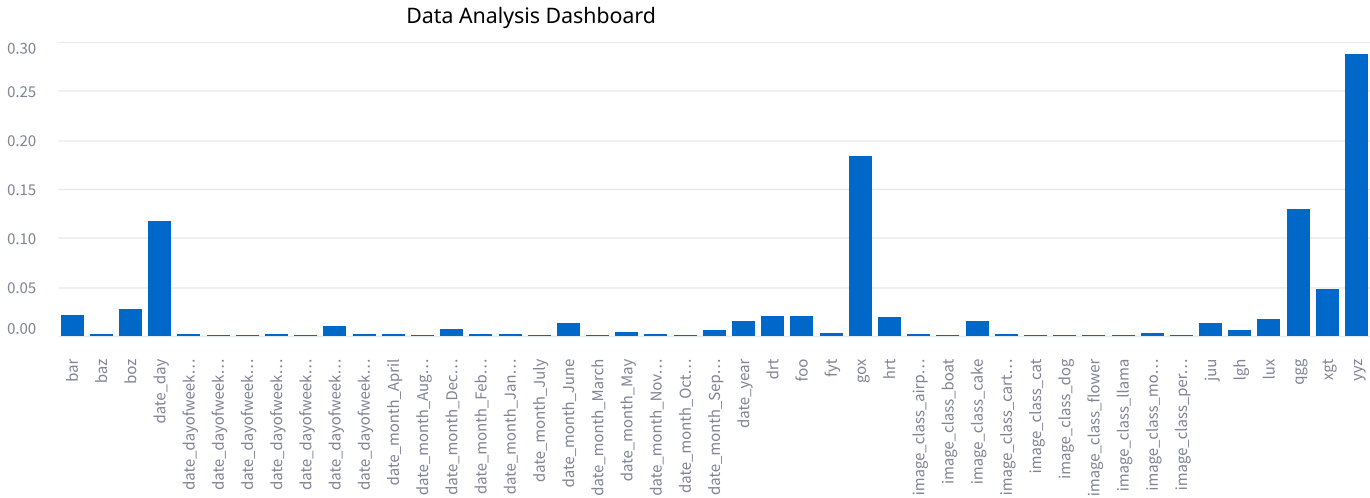
### Test Obs vs Pred



### Test Standard Errors



## Feature Importances



Remember to click save model: name 'filename\_v1' is not defined

# Running Model with Selected Features

The model RandomForestRegressor(n\_estimators=200, random\_state=42) will be stored into the local directory.

Please write a name for your model file:

my\_model\_selected\_features

Save Second Model

## Model Evaluation

Selected Features for new model :['qgg', 'yyz', 'gox', 'date\_day']

### Model

Params: <bound method  
BaseEstimator.get\_params of  
RandomForestRegressor(n\_estimators=200,  
random\_state=42)>

### CV Training Results

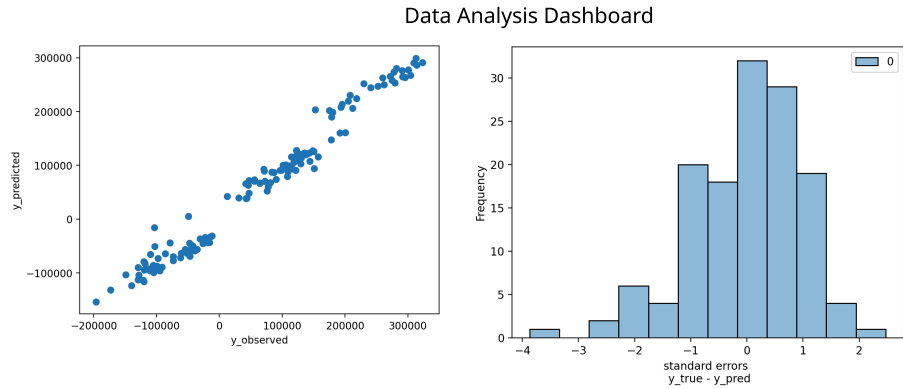
CV RMSE: 53610.32  
  
CV R2: 0.85  
  
Rows in Set: 542

### Testing Results

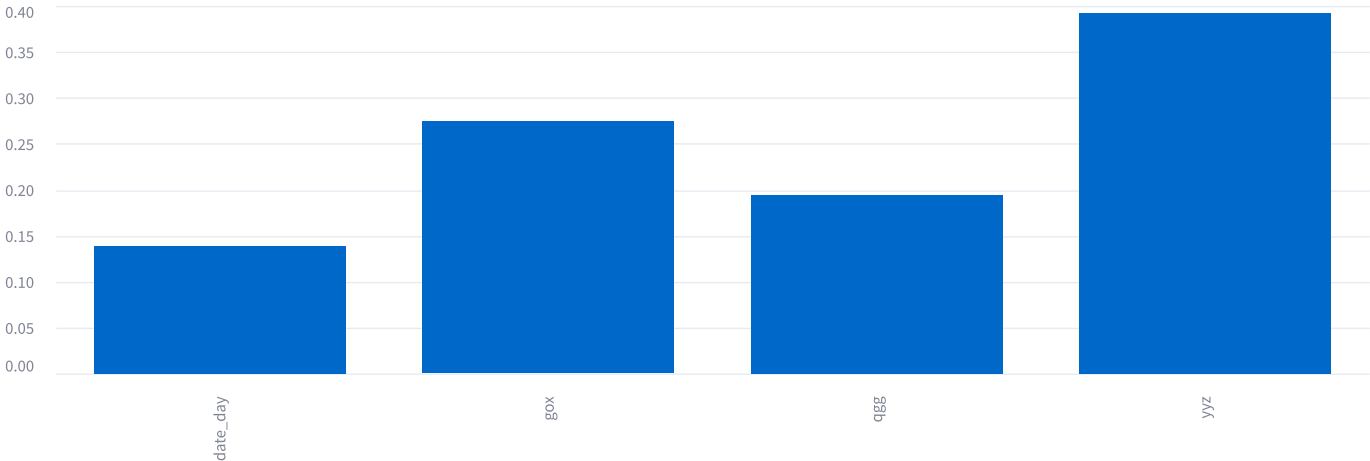
Test RMSE: 22890.36  
  
Test R2: 0.97  
  
Rows in Set: 136

### Test Obs vs Pred

### Test Standard Errors



### Feature Importances




Remember to click save model: name 'filename\_v2' is not defined

### Analyze New Data Values

Upload your trained model in Pickle Format `.pkl` from your local computer.

Choose a `.pkl` file

 Drag and drop file here  
Limit 200MB per file • PKL

Browse files



my\_model\_selected\_features\_20250520\_161327.pkl 2.5MB



File 'my\_model\_selected\_features\_20250520\_161327.pkl' uploaded successfully!

Model Details:

- Model Type: RandomForestRegressor
- Number of estimators: 200
- Random state: 42

A model is currently loaded in your session.

Clear Model

# Predictions with New DataSet

The model doesn't predict image class, do you want to see the images from the uploaded newdata :

Select your answer:

- ☐ Yes
- ☒ No

The predictions will be estimated.

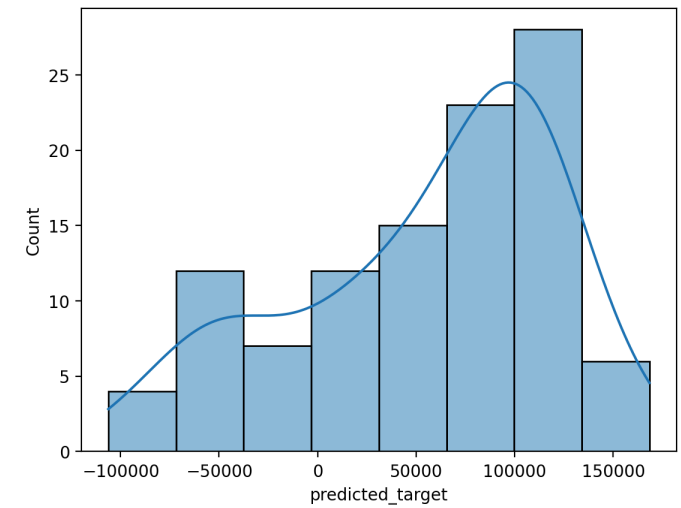
## New Data Set One Hot Encoding and Standard Transformation

	bar	baz	xgt	qgg	lux	wsg	yyz	drt	gox	foo	boz	fyt	lgh	hrt	juu	date_y
count	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	
mean	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
std	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	1.0047	
min	-0.814	-1.0677	-2.3363	-2.472	-2.0292	-2.0927	-2.6763	-6.6896	-2.4209	-2.6964	-0.2722	-0.9907	-0.6532	-2.6933	-1.3688	
25%	-0.5847	-1.0677	-0.756	-0.4961	-0.8177	-0.5837	-0.4652	0.219	-0.3633	-0.6132	-0.2476	-0.9907	-0.6532	-0.5992	-0.6455	
50%	-0.5341	0.9366	-0.0487	-0.0619	-0.1751	-0.0439	-0.0121	0.2642	0.0691	-0.0182	-0.2194	-0.9907	-0.6532	0.0091	-0.1966	
75%	0.2206	0.9366	0.6866	0.5237	0.7169	0.5535	0.5247	0.2774	0.5322	0.8355	-0.1206	1.0094	1.5309	0.6576	0.4089	
max	3.1868	0.9366	2.4116	2.322	2.1098	2.8979	2.4599	0.2794	2.2394	2.3261	7.1318	1.0094	1.5309	2.5729	3.7215	

## Predicted target

	predicted_target
0	116863.1979
1	18728.5405
2	-58821.4017
3	-36032.9047
4	-19499.9199

## Predicted target Distribution



## New Data Set with predictions

	image	date	bar	baz	xgt	qgg	lux	wsg	yyz	drt	gox	foo	l
0	test-img/boat/boat_3.jpg	2020-11-18	495.361	0	331.9667	21.0215	5190.7102	0.0152	-12.3441	-4.5872	-11.227	-7.9964	l
1	test-img/person/person_53.jpg	2019-01-20	127.4159	1	396.8519	5.6302	4767.2682	0.0108	5.4995	-25.6759	3.2398	23.3265	3
2	test-img/boat/boat_62.jpg	2019-07-05	-48.353	0	414.0968	-0.4063	4452.1813	0.0106	-0.7461	-15.2135	-0.5181	38.5688	3
3	test-img/car/car_7.jpg	2020-12-15	53.1638	0	365.5375	15.6114	5864.5716	0.0131	-17.03	-38.9334	14.9058	43.3215	0
4	test-img/cat/cat_2.jpg	2020-03-20	-32.5913	0	263.0537	-5.9384	4983.3841	0.0158	-7.0179	-7.0664	-25.4288	37.8503	l

## Save predictions

Enter file name using your last\_name-answer.csv

hernandez-answer.csv

Download CSV

