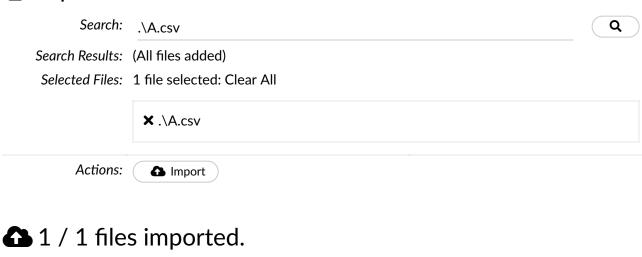
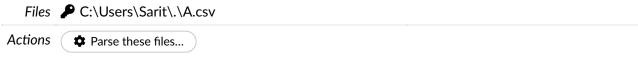
# Sarit\_CrudeOil

### Assistance

	Routine	Description
Ф	importFiles	Import file(s) into H <sub>2</sub> O
⊞	importSqlTable	Import SQL table into H <sub>2</sub> O
⊞	getFrames	Get a list of frames in H <sub>2</sub> O
×	splitFrame	Split a frame into two or more frames
Ø	mergeFrames	Merge two frames into one
	getModels	Get a list of models in H <sub>2</sub> O
	getGrids	Get a list of grid search results in H <sub>2</sub> O
7	getPredictions	Get a list of predictions in H <sub>2</sub> O
₹≣	getJobs	Get a list of jobs running in H <sub>2</sub> O
4	runAutoML	Automatically train and tune many models
•	buildModel	Build a model
•	importModel	Import a saved model
7	predict	Make a prediction

# Import Files

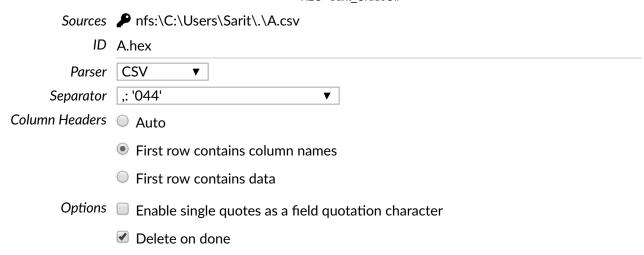




# Setup Parse

PARSE CONFIGURATION

127.0.0.1:54321/flow/index.html# 1/21



#### EDIT COLUMN NAMES AND TYPES

Search b	y columr	name
----------	----------	------

Jear	err by column man	110			
1	CrudeOilPri	Numeric ▼	25.55	24.91	24.78
2	ma_20	Numeric ▼	0.0	0.0	0.0
3	ma_100	Numeric ▼	0.0	0.0	0.0
4	rsi	Numeric ▼	0.0	0.0	0.0
5	std_20	Numeric ▼	0.0	0.0	0.0
6	std_100	Numeric ▼	0.0	0.0	0.0
7	Rolling Mea	Numeric ▼	0.0	0.0	0.0
8	Bollinger H	Numeric ▼	0.0	0.0	0.0
9	Bollinger L	Numeric ▼	0.0	0.0	0.0
10	26_ema	Numeric ▼	25.55	25.217692307692307	25.06043371118
11	12_ema	Numeric ▼	25.55	25.2033333333333	25.03810623556
12	macd	Numeric ▼	0.0	-0.01435897435897715	-0.02232747562
13	CCI	Numeric ▼	156.614458694477	156.614458694477	156.6144586944
14	Index	Numeric ▼	1411.75	1413.5	1404.0
15	GoldPrice	Numeric ▼	282.7	281.1	281.4
<b>(</b>	Previous page	→ Next page			

Parse

### **₹** Job

Run Time 00:00:00.215

Remaining Time 00:00:00.0

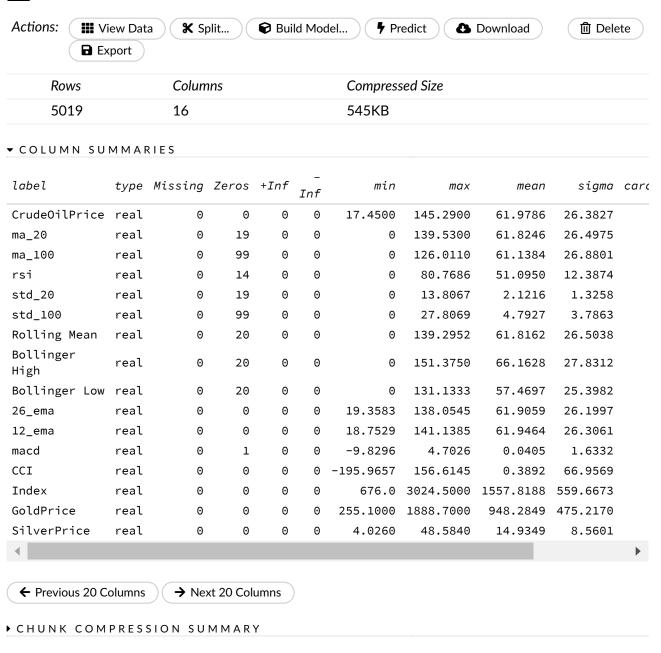
Type Frame

Key Q A.hex

127.0.0.1:54321/flow/index.html# 2/21

Description Parse
Status DONE
Progress 100%
Done.
Actions Q View

### **A.hex**



# **X** Split Frame

▶ FRAME DISTRIBUTION SUMMARY

Frame: A.hex ▼

127.0.0.1:54321/flow/index.html# 3/21

 Splits:
 Ratio
 Key

 0.75
 frame\_0.750
 X

 0.250
 frame\_0.250

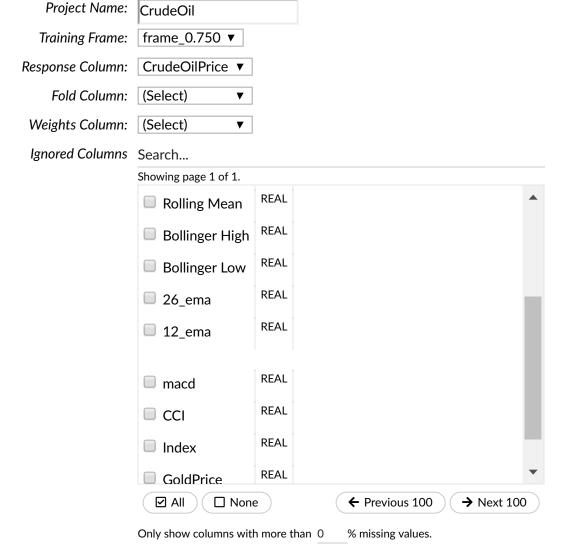
 Add a new split
 Seed:
 387389

**X** Create

# **⊞** Split Frames

Туре	Key	Ratio
$\blacksquare$	frame_0.750	0.75
⊞	frame_0.250	0.25

# cs Run AutoML



127.0.0.1:54321/flow/index.html# 4/21

Validation Frame:	frame_0.250 ▼
Blending Frame:	(Select) ▼
Leaderboard Frame:	(Select) ▼
Balance classes:	
Exclude these algorithms	<b>☑</b> GLM
	✓ DRF
	□ GBM
	✓ XGBoost
	DeepLearning
	StackedEnsemble
Max models to build:	
Max Run Time (sec):	3600
Max Run Time Per Model (sec):	0
Early stopping metric:	AUTO ▼
Leaderboard sort metric:	AUTO ▼
Early stopping rounds:	3
Early stopping tolerance:	
nfolds:	5
Keep cross-validation predictions	
Keep cross-validation models	
Keep cross-validation fold assignment	
Seed:	-1
Checkpoints path:	
<b>₽</b> Build Model	

# **≨**∃Job

Run Time 00:48:32.300

Remaining Time 00:00:00.0

Type Auto Model

Key **Q** CrudeOil

127.0.0.1:54321/flow/index.html# 5/21

Description AutoML build

Status DONE

Progress 100%

Done.

Actions Q View

### **₹** Leaderboard



#### ▼ MODELS

```
models sorted in order of mean_residual_deviance, best first
    model_id
                                                          mean_residual_deviance
                                                                                  rmse
0
    StackedEnsemble_AllModels_AutoML_20190830_143034
                                                          0.39797802197287396
                                                                                   0.63085
1
    GBM_1_AutoML_20190830_143034
                                                          0.41919219156810156
                                                                                   0.64745
2
    GBM_2_AutoML_20190830_143034
                                                          0.431823504904811
                                                                                   0.65713
3
    GBM_grid_1_AutoML_20190830_143034_model_12
                                                          0.4430321316166997
                                                                                   0.66560
                                                          0.4531098581165988
4
    GBM_grid_1_AutoML_20190830_143034_model_4
                                                                                   0.67313
    GBM_4_AutoML_20190830_143034
                                                          0.45535089863185135
                                                                                   0.67479
5
    GBM_3_AutoML_20190830_143034
                                                          0.45996912375760185
                                                                                   0.67821
6
7
    StackedEnsemble_BestOfFamily_AutoML_20190830_143034
                                                                                   0.72448
                                                          0.5248762756931
    GBM_grid_1_AutoML_20190830_143034_model_3
8
                                                          0.558232818451583
                                                                                   0.74714
    GBM_grid_1_AutoML_20190830_143034_model_6
                                                          0.608801804091251
                                                                                   0.78025
9
   GBM_grid_1_AutoML_20190830_143034_model_9
                                                                                   0.78680
10
                                                          0.6190604962554668
11 GBM_grid_1_AutoML_20190830_143034_model_11
                                                          0.6628403496911385
                                                                                   0.81415
12 GBM_5_AutoML_20190830_143034
                                                          0.8458106782469923
                                                                                   0.91967
   GBM_grid_1_AutoML_20190830_143034_model_10
                                                          1.0187786176783922
                                                                                   1.00934
14 GBM_grid_1_AutoML_20190830_143034_model_2
                                                          1.14273428084603
                                                                                   1.06898
   GBM_grid_1_AutoML_20190830_143034_model_5
                                                          1.2056720021326872
                                                                                   1.09803
   GBM_grid_1_AutoML_20190830_143034_model_20
                                                          1.2284495119580696
                                                                                   1.10835
17 GBM_grid_1_AutoML_20190830_143034_model_7
                                                          1.2392462341632402
                                                                                   1.11321
18
   GBM_grid_1_AutoML_20190830_143034_model_8
                                                          1.2802927591789832
                                                                                   1.13150
   GBM_grid_1_AutoML_20190830_143034_model_17
                                                          1.4647710947040744
                                                                                   1.21027
   DeepLearning_grid_1_AutoML_20190830_143034_model_3
                                                          1.5480755049847759
                                                                                   1.24421
20
21 GBM_grid_1_AutoML_20190830_143034_model_1
                                                          2.0996746535879285
                                                                                   1.44902
    GBM_grid_1_AutoML_20190830_143034_model_21
                                                          2.1910987202615906
                                                                                   1.48023
```

#### ▼ EVENT LOG

### Actions taken and discoveries made by AutoML

```
timestamp level stage message

0 14:30:34.441 Info Workflow Project: CrudeOil

1 14:30:34.441 Info Workflow AutoML job created: 2019.08.30 14:30:34.436

2 14:30:34.442 Info ModelTraining Disabling Algo: XGBoost as requested by the user.
```

127.0.0.1:54321/flow/index.html# 6/21

	timestamp	level	stage	message	
3	14:30:34.442	Info	ModelTraining	Disabling Algo: GLM as requested by the user.	
4	14:30:34.442	Info	ModelTraining	Disabling Algo: DRF as requested by the user.	
5	14:30:34.442	Info	Workflow	Build control seed: -1 (random)	
6	14:30:34.443	Info	DataImport	training frame: Frame key: automl_training_frame_0.750 cols: 16 rows: 3810 chunks: 32 size: 432457 checksum: -2233497062284034989	
7	14:30:34.443	Info	DataImport	validation frame: Frame key: frame_0.250 cols: 16 rows: 1209 chunks: 32 size: 162260 checksum: -3681058585804684743	
8	14:30:34.443	Info	DataImport	leaderboard frame: NULL	
9	14:30:34.443	Info	DataImport	response column: CrudeOilPrice	
10	14:30:34.443	Info	DataImport	fold column: null	
11	14:30:34.443	Info	DataImport	weights column: null	
12	14:30:34.503	Info	Workflow	Setting stopping tolerance adaptively based on the training frame: 0.01620083922520836	
13	14:30:34.511	Info	Workflow	AutoML build started: 2019.08.30 14:30:34.511	
14	14:30:34.528	Debug	ModelTraining	GBM 1 started	
15	14:30:40.657	Debug	ModelTraining	GBM 1 complete	•
4					

# **₩** Model

▶ COLUMN\_TYPES

**DOMAINS** 

▼ OUTPUT - TRAINING\_METRICS

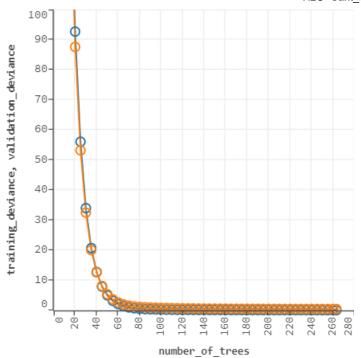
127.0.0.1:54321/flow/index.html# 7/21

```
model StackedEnsemble_AllModels_AutoML_20190830_143034
             model_checksum 3947491004709390848
                      frame automl_training_frame_0.750
             frame_checksum -2233497062284034989
                description ·
             model_category Regression
               scoring_time 1567149546409
                predictions ·
                        MSE 0.122881
                       RMSE 0.350544
                       nobs 3810
         custom_metric_name .
        custom_metric_value 0
                         r2 0.999826
     mean_residual_deviance 0.122881
                        mae 0.262287
                      rmsle 0.005882
          residual_deviance 468.176240
              null_deviance 2689245.415876
                        AIC 2882.495512
    null_degrees_of_freedom 3809
residual_degrees_of_freedom 3782
▶ OUTPUT - VALIDATION_METRICS
▶ OUTPUT - CROSS_VALIDATION_METRICS
▶ OUTPUT - HELP
Model ID: GBM_grid_1_AutoML_20190830_143034_model_12
Algorithm: Gradient Boosting Machine
  Actions:
            2 Refresh
                        Predict...
                                    ♣ Download POJO
            ▲ Download Model Deployment Package (MOJO)
                                                    ■ Export
                                                               ≡ Inspect
                                                                           间 Delete

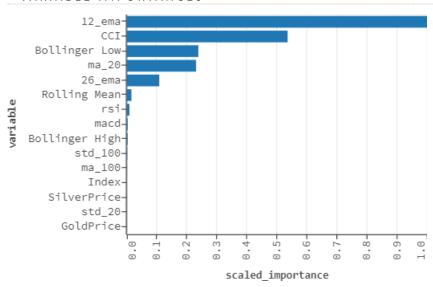
▲ Download Gen Model

▶ MODEL PARAMETERS
▼ SCORING HISTORY - DEVIANCE
```

127.0.0.1:54321/flow/index.html# 8/21



#### ▼ VARIABLE IMPORTANCES



### **▼** OUTPUT

start\_time 1567147134947 end\_time 1567147137077

run\_time 2130
init\_f 61.964289

#### ▶ COLUMN\_TYPES

127.0.0.1:54321/flow/index.html# 9/21

```
▶ CROSS_VALIDATION_MODELS
```

#### ▶ CROSS\_VALIDATION\_PREDICTIONS

#### ▶ OUTPUT - MODEL SUMMARY

#### ▶ OUTPUT - SCORING HISTORY

#### ▼ OUTPUT - TRAINING\_METRICS

```
model GBM_grid_1_AutoML_20190830_143034_model_12
        model_checksum -6796851697300311060
                 frame automl_training_frame_0.750
        frame_checksum -2233497062284034989
           description ·
        model_category Regression
          scoring_time 1567147137075
          predictions ·
                  MSE 0.068214
                  RMSE 0.261178
                 nobs 3810
   custom_metric_name .
   custom_metric_value 0
                   r2 0.999903
mean_residual_deviance 0.068214
                  mae 0.199988
```

#### ▼ OUTPUT - VALIDATION\_METRICS

rmsle 0.005064

```
model GBM_grid_1_AutoML_20190830_143034_model_12
        model_checksum -6796851697300311060
                 frame frame_0.250
        frame_checksum -3681058585804684743
           description ·
        model_category Regression
          scoring_time 1567147137075
           predictions ·
                  MSE 0.471807
                  RMSE 0.686882
                  nobs 1209
    custom_metric_name .
   custom_metric_value 0
                   r2 0.999290
mean_residual_deviance 0.471807
                  mae 0.411013
                 rmsle 0.011749
```

#### ▼ OUTPUT - CROSS\_VALIDATION\_METRICS

127.0.0.1:54321/flow/index.html# 10/21

model GBM\_grid\_1\_AutoML\_20190830\_143034\_model\_12

model\_checksum -6796851697300311060

frame automl\_training\_frame\_0.750

frame\_checksum -2233497062284034989

description 5-fold cross-validation on training data (Metrics computed for

combined holdout predictions)

model\_category Regression

scoring\_time 1567147137079

predictions ·

MSE 0.443032

RMSE 0.665607

nobs 3810

 $custom\_metric\_name$  .

custom\_metric\_value 0

r2 0.999372

mean\_residual\_deviance 0.443032

mae 0.408479

rmsle 0.010884

#### ▼ OUTPUT - CROSS-VALIDATION METRICS SUMMARY

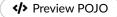
	mean	sd	cv_1_valid	cv_2_valid	cv_3_valid	cv_4_vc
mae	0.40847865	0.012054166	0.4133493	0.39849204	0.42130068	0.39314
mean_residual_deviance	0.44303215	0.13217388	0.4576891	0.3663421	0.6677815	0.36573
mse	0.44303215	0.13217388	0.4576891	0.3663421	0.6677815	0.36573
r2	0.99937314	1.826032E-4	0.9993499	0.9994813	0.9990635	0.99948
residual_deviance	0.44303215	0.13217388	0.4576891	0.3663421	0.6677815	0.36573
rmse	0.6603472	0.09336557	0.67652726	0.60526204	0.81717896	0.60475
rmsle	0.010861124	7.867991E-4	0.011710031	0.0101767015	0.011700906	0.01055

#### ▼ OUTPUT - VARIABLE IMPORTANCES

127.0.0.1:54321/flow/index.html# 11/21

variable	relative_importance	scaled_importance	percentage
12_ema	11773251.0	1.0	0.4660
CCI	6294623.5000	0.5347	0.2492
Bollinger Low	2801105.7500	0.2379	0.1109
ma_20	2711104.0	0.2303	0.1073
26_ema	1269739.0	0.1078	0.0503
Rolling Mean	180988.3594	0.0154	0.0072
rsi	104728.7578	0.0089	0.0041
macd	35692.1094	0.0030	0.0014
Bollinger High	34989.9609	0.0030	0.0014
std_100	20906.2246	0.0018	0.0008
ma_100	10920.7012	0.0009	0.0004
Index	7514.0400	0.0006	0.0003
SilverPrice	6186.8457	0.0005	0.0002
std_20	5950.8618	0.0005	0.0002
GoldPrice	4612.6250	0.0004	0.0002

#### ▼ PREVIEW POJO





Model ID: GBM\_1\_AutoML\_20190830\_143034

Algorithm: Gradient Boosting Machine

Actions: Predict... Download POJO

 Lownload Model Deployment Package (MOJO)

 Lownload Export

 Lownload Export

 Lownload Export

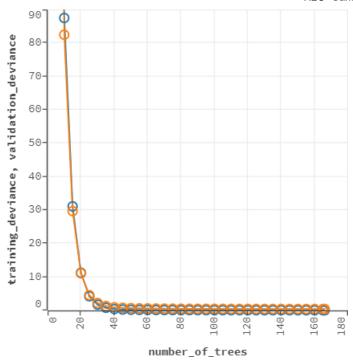
 Lownload Export

▲ Download Gen Model

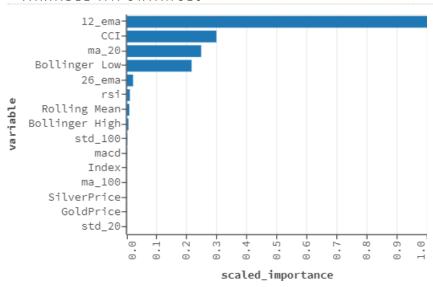
### ▶ MODEL PARAMETERS

▼ SCORING HISTORY - DEVIANCE

127.0.0.1:54321/flow/index.html# 12/21



#### ▼ VARIABLE IMPORTANCES



### ▶ OUTPUT

### ▶ COLUMN\_TYPES

#### ▶ CROSS\_VALIDATION\_MODELS

#### ▼ CROSS\_VALIDATION\_PREDICTIONS

### $cross\_validation\_predictions$

```
prediction_GBM_1_AutoML_20190830_143034_cv_1
prediction_GBM_1_AutoML_20190830_143034_cv_2
prediction_GBM_1_AutoML_20190830_143034_cv_3
prediction_GBM_1_AutoML_20190830_143034_cv_4
prediction_GBM_1_AutoML_20190830_143034_cv_5
```

127.0.0.1:54321/flow/index.html# 13/21

#### ▼ OUTPUT - MODEL SUMMARY

```
number_of_trees 166
number_of_internal_trees 166
model_size_in_bytes 120375
min_depth 6
max_depth 6
mean_depth 6.0
min_leaves 23
max_leaves 64
mean_leaves 53.0301
```

#### ▶ OUTPUT - SCORING HISTORY

#### ▼ OUTPUT - TRAINING\_METRICS

```
model GBM_1_AutoML_20190830_143034
       model_checksum 6226879961029173796
                 frame automl_training_frame_0.750
       frame_checksum -2233497062284034989
           description .
       model_category Regression
         scoring_time 1567146640085
          predictions ·
                  MSE 0.044891
                 RMSE 0.211874
                 nobs 3810
   custom_metric_name •
   custom_metric_value 0
                   r2 0.999936
mean_residual_deviance 0.044891
                  mae 0.166958
                 rmsle 0.004043
```

### ▼ OUTPUT - VALIDATION\_METRICS

127.0.0.1:54321/flow/index.html# 14/21

model GBM\_1\_AutoML\_20190830\_143034

model\_checksum 6226879961029173796

frame frame\_0.250

frame\_checksum -3681058585804684743

description ·

model\_category Regression

scoring\_time 1567146640085

predictions ·

MSE 0.422904

RMSE 0.650311

nobs 1209

custom\_metric\_name .

custom\_metric\_value 0

r2 0.999364

mean\_residual\_deviance 0.422904

mae 0.398949

rmsle 0.011001

#### ▼ OUTPUT - CROSS\_VALIDATION\_METRICS

model GBM\_1\_AutoML\_20190830\_143034

model checksum 6226879961029173796

frame automl\_training\_frame\_0.750

frame\_checksum -2233497062284034989

description 5-fold cross-validation on training data (Metrics computed for

combined holdout predictions)

model\_category Regression

scoring\_time 1567146640089

predictions ·

MSE 0.419192

RMSE 0.647451

nobs 3810

 $custom\_metric\_name$  .

custom\_metric\_value 0

r2 0.999406

mean\_residual\_deviance 0.419192

mae 0.396847

rmsle 0.010613

### ▼ OUTPUT - CROSS-VALIDATION METRICS SUMMARY

127.0.0.1:54321/flow/index.html#

	mean	sd	cv_1_valid	cv_2_valid	cv_3_valid	cv_4_vali
mae	0.39684707	0.016717494	0.41442204	0.3805852	0.405379	0.3773761
mean_residual_deviance	0.4191922	0.08446287	0.45529652	0.38921723	0.5482576	0.3352058
mse	0.4191922	0.08446287	0.45529652	0.38921723	0.5482576	0.3352058
r2	0.9994065	1.1625201E- 4	0.9993533	0.9994489	0.9992311	0.9995252
residual_deviance	0.4191922	0.08446287	0.45529652	0.38921723	0.5482576	0.3352058
rmse	0.644932	0.06378612	0.67475665	0.62387276	0.7404442	0.5789696
rmsle	0.010597567	6.3169876E-	0.011595462	0.01050914	0.010680975	0.0098858

Model

Model ID: StackedEnsemble\_BestOfFamily\_AutoML\_20190830\_143034

Algorithm: Stacked Ensemble

▶ MODEL PARAMETERS

▶ OUTPUT

NAMES

▶ COLUMN\_TYPES

DOMAINS

▶ OUTPUT - TRAINING\_METRICS

▶ OUTPUT - VALIDATION\_METRICS

▼ OUTPUT - CROSS\_VALIDATION\_METRICS

127.0.0.1:54321/flow/index.html# 16/21

```
H2O- Sarit_CrudeOil
                 model StackedEnsemble_BestOfFamily_AutoML_20190830_143034
        model_checksum 7234688112822727604
                 frame levelone_training_StackedEnsemble_BestOfFamily_AutoML_20190830_14
        frame_checksum -3540781649236630078
                       5-fold cross-validation on training data (Metrics computed for
           description
                       combined holdout predictions)
        model_category Regression
          scoring_time 1567149513627
           predictions ·
                   MSE 0.524876
                  RMSE 0.724483
                  nobs 3810
    custom\_metric\_name .
   custom_metric_value 0
                    r2 0.999256
mean_residual_deviance 0.524876
                   mae 0.438490
                 rmsle 0.011534
     residual_deviance 1999.778610
         null_deviance 2690423.866949
```

null\_degrees\_of\_freedom 3809 residual\_degrees\_of\_freedom 3807

AIC 8364.413400

**▼** OUTPUT - HELP

8/30/2019

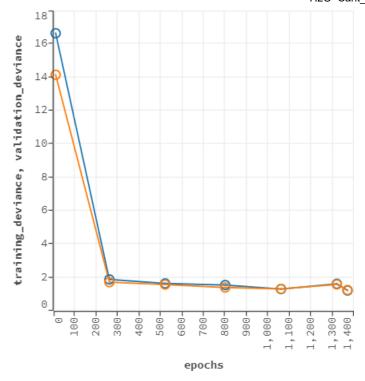
127.0.0.1:54321/flow/index.html# 17/21

cross\_validation\_metrics Cross-validation model metrics cross\_validation\_metrics\_summary Cross-validation model metrics summary start\_time Start time in milliseconds run\_time Runtime in milliseconds status Job status Level one frame used for metalearner levelone\_frame\_id training. domains Domains for categorical columns model\_category Category of the model (e.g., Binomial) Metadata on this schema instance, to make it self-describing. model\_summary Model summary scoring\_history Scoring history help Help information for output fields end time End time in milliseconds names Column names stacking\_strategy The stacking strategy used for training. column\_types Column types Model which combines the base\_models into a metalearner stacked ensemble. Cross-validation fold assignment (each row is cross\_validation\_fold\_assignment\_frame\_id assigned to one holdout fold) cross\_validation\_models Cross-validation models (model ids) training\_metrics Training data model metrics Cross-validation predictions, one per cv model (deprecated, use cross validation predictions

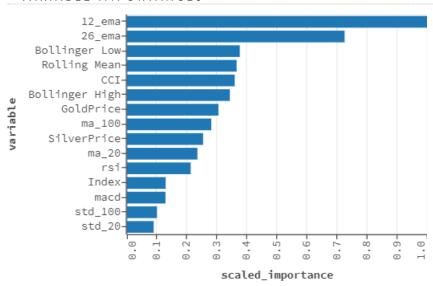
## **₩** Model

Model ID:	DeepLearning_grid_1_AutoML_20190830_143034_model_3
Algorithm:	Deep Learning
Actions:	<b>€</b> Refresh <b>♦</b> Predict <b>≜</b> Download POJO
	Language (MOJO)       Language (MOJO) <td< td=""></td<>
	<b>♣</b> Download Gen Model
▶ MODEL F	PARAMETERS
▼ SCORIN®	G HISTORY - DEVIANCE

127.0.0.1:54321/flow/index.html# 18/21



#### ▼ VARIABLE IMPORTANCES



- ▶ OUTPUT
- ▶ COLUMN\_TYPES
- ▶ CROSS\_VALIDATION\_MODELS
- ▶ CROSS\_VALIDATION\_PREDICTIONS
- ▶ OUTPUT STATUS OF NEURON LAYERS (PREDICTING CRUDEOILPRICE, REGRESSION, GAUSSIAN DISTRIBUTION, QUADRATIC LOSS, 851 WEIGHTS/BIASES, 15.9 KB, 5,219,700 TRAINING SAMPLES, MINI-BATCH SIZE 1)
- ▶ OUTPUT SCORING HISTORY
- ▼ OUTPUT TRAINING\_METRICS

```
model DeepLearning_grid_1_AutoML_20190830_143034_model_3
       model_checksum -3083048876831396508
                 frame automl_training_frame_0.750
        frame_checksum -2233497062284034989
           description Metrics reported on full training frame
       model_category Regression
          scoring_time 1567148511742
          predictions ·
                  MSE 1.225292
                  RMSE 1.106929
                 nobs 3810
    custom_metric_name .
   custom_metric_value 0
                   r2 0.998264
mean_residual_deviance 1.225292
                  mae 0.775287
                 rmsle 0.019721
```

#### ▼ OUTPUT - VALIDATION\_METRICS

8/30/2019

```
model DeepLearning_grid_1_AutoML_20190830_143034_model_3
        model checksum -3083048876831396508
                 frame frame_0.250
        frame_checksum -3681058585804684743
           description Metrics reported on full validation frame
        model_category Regression
          scoring_time 1567148511744
           predictions ·
                  MSE 1.254336
                 RMSE 1.119971
                 nobs 1209
    custom_metric_name .
   custom_metric_value 0
                   r2 0.998113
mean_residual_deviance 1.254336
                  mae 0.801259
                 rmsle 0.020362
```

#### ▼ OUTPUT - CROSS\_VALIDATION\_METRICS

127.0.0.1:54321/flow/index.html# 20/21

model DeepLearning\_grid\_1\_AutoML\_20190830\_143034\_model\_3

model\_checksum -3083048876831396508

frame automl\_training\_frame\_0.750

frame\_checksum -2233497062284034989

description 5-fold cross-validation on training data (Metrics computed for

combined holdout predictions)

model\_category Regression

scoring\_time 1567148511746

predictions ·

MSE 1.548076

RMSE 1.244217

nobs 3810

custom\_metric\_name •

custom\_metric\_value 0

r2 0.997807

mean\_residual\_deviance 1.548076

mae 0.831003

rmsle 0.020938

#### ▶ OUTPUT - CROSS-VALIDATION METRICS SUMMARY

#### ▼ OUTPUT - VARIABLE IMPORTANCES

variable	relative_importance	scaled_importance	percentage
12_ema	1.0	1.0	0.2041
26_ema	0.7242	0.7242	0.1478
Bollinger Low	0.3757	0.3757	0.0767
Rolling Mean	0.3651	0.3651	0.0745
CCI	0.3588	0.3588	0.0732
Bollinger High	0.3425	0.3425	0.0699
GoldPrice	0.3048	0.3048	0.0622
ma_100	0.2809	0.2809	0.0573
SilverPrice	0.2536	0.2536	0.0518
ma_20	0.2346	0.2346	0.0479
rsi	0.2123	0.2123	0.0433
Index	0.1292	0.1292	0.0264
macd	0.1285	0.1285	0.0262
std_100	0.1004	0.1004	0.0205
std_20	0.0893	0.0893	0.0182

#### ▼ PREVIEW POJO

Preview POJO

127.0.0.1:54321/flow/index.html# 21/21