Untitled Flow

❓ Assistance

	Routine	Description
▣	importFiles	Import file(s) into H_2O
▦	importSqlTable	Import SQL table into H_2O
▦	getFrames	Get a list of frames in H_2O
✂	splitFrame	Split a frame into two or more frames
🔗	mergeFrames	Merge two frames into one
♣	getModels	Get a list of models in H_2O
▦	getGrids	Get a list of grid search results in H_2O
⚡	getPredictions	Get a list of predictions in H_2O
☰	getJobs	Get a list of jobs running in H_2O
⛓	runAutoML	Automatically train and tune many models
◈	buildModel	Build a model
◈	importModel	Import a saved model
⚡	predict	Make a prediction

▣ Import Files

Search: /Users/kevin/Desktop/Northwestern/SWC-Haoyang Han/Week_2/ 🔍

Search Results: Found 5 files: Add all

> **+** /Users/kevin/Desktop/Northwestern/SWC-Haoyang Han/Week_2/part_sat_dataset.csv
> **+** /Users/kevin/Desktop/Northwestern/SWC-Haoyang Han/Week_2/metric.csv
> **+** /Users/kevin/Desktop/Northwestern/SWC-Haoyang Han/Week_2/full_sat_dataset.csv
> **+** /Users/kevin/Desktop/Northwestern/SWC-Haoyang Han/Week_2/Define metric, feature engineering.ipynb

Selected Files: 1 file selected: Clear All

✕ /Users/kevin/Desktop/Northwestern/SWC-Haoyang
Han/Week_2/h2o.csv

Actions: ☁ Import

☁ 1 / 1 files imported.

Files   🔑 /Users/kevin/Desktop/Northwestern/SWC-Haoyang Han/Week_2/h2o.csv

Actions   ⚙ Parse these files...

⚙ Setup Parse

PARSE CONFIGURATION

Sources 🔑 nfs://Users/kevin/Desktop/Northwestern/SWC-Haoyang
Han/Week_2/h2o.csv

ID h2o1.hex

Parser | CSV ⇕ |

Separator | ,: '044' ⇕ |

Column Headers ◯ Auto

⦿ First row contains column names
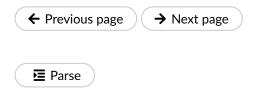
◯ First row contains data

Options ☐ Enable single quotes as a field quotation character

☑ Delete on done

EDIT COLUMN NAMES AND TYPES

Search by column name...

16	pseudorange	Numeric ⇕	849.5403442382809	−343.780670166016	−549.273132:
17	pseudorange	Numeric ⇕	2.2125000953674303	0.0318000018596649	0.787999987(
18	has_ephemer	Numeric ⇕	1	0	1
19	has_almanac	Numeric ⇕	0	0	0
20	azimuth_deg	Numeric ⇕	158	278	147
21	elevation_c	Numeric ⇕	14	29	18
22	metric_scor	Numeric ⇕	10	70	20

⠿ Parse

⠿ Job

Run Time	00:00:00.147
Remaining Time	00:00:00.0
Type	Frame
Key	🔍 h2o1.hex
Description	Parse
Status	DONE
Progress	100%
	Done.
Actions	🔍 View

⊞ h2o1.hex

Actions: ▦ View Data   ✄ Split...   ◈ Build Model...   ⚡ Predict   🗑 Delete
             ☁ Download   💾 Export

Rows	Columns	Compressed Size
10000	22	325KB

▾ C O L U M N   S U M M A R I E S
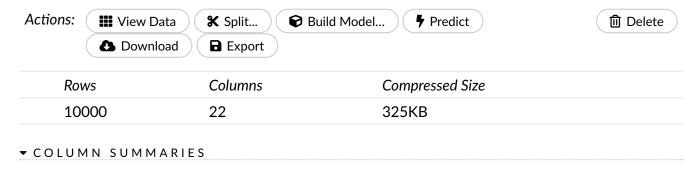
label	type	Missing	Zeros	+Inf	$-\text{Inf}$	min	max	
C1	int	0	1	0	0	0	9999.0	4999
svid	int	0	0	0	0	1.0	31.0	13
constellation	enum	0	255	0	0	0	3.0	
in_fix	int	0	5	0	0	0	1.0	(
sync_state_flags	int	0	0	0	0	15.0	7183.0	141
sync_state_text	int	10000	0	0	0	.	.	
sat_time_1sigma_nanos	int	0	0	0	0	4.0	3476.0	62
rcvr_time_offset_nanos	int	0	10000	0	0	0	0	
multipath	int	0	10000	0	0	0	0	
has_carrier_freq	int	0	5	0	0	0	1.0	(
carrier_freq_hz	int	0	10000	0	0	0	0	

(← Previous 20 Columns)   (→ Next 20 Columns)

▸ CHUNK COMPRESSION SUMMARY

▸ FRAME DISTRIBUTION SUMMARY

✂ Split Frame

Frame: [(Select) ⇕]

Splits: Ratio   Key

0.75   frame_0.750   ✖

0.250   frame_0.250

Add a new split

Seed: 911262

✕ Create

Frame not specified.

📦 Build a Model

Select an algorithm: | Distributed Random Forest   ⬍ |

PARAMETERS

model_id	drf-ddb53fc2-2d7e-442c-87e3-c5b86e1024ec
training_frame	h2o1.hex
validation_frame	h2o1.hex
nfolds	5

response_column	metric_score ⬍
ignored_columns	Search...

⊘ All   ☐ None

Only show columns with more than 0   % missing values.

ignore_const_cols	✔
ntrees	50

max_depth	20
min_rows	1
nbins	20
seed	-1
mtries	-1
sample_rate	0.6320000290870667

A D V A N C E D

score_each_iteration	☐
score_tree_interval	0
fold_assignment	AUTO ⬍
offset_column	(Choose...) ⬍
weights_column	(Choose...) ⬍

nbins_top_level 1024

nbins_cats 1024

r2_stopping 1.7976931348623157e+308

stopping_rounds 0

stopping_metric MSE ⬍

Stopping metric is ignored for _stopping_rounds=0.

stopping_tolerance 0.001

max_runtime_secs 0

checkpoint

col_sample_rate_per_tree 1

min_split_improvement 0.00001

histogram_type AUTO

categorical_encoding AUTO

distribution AUTO

custom_metric_func

export_checkpoints_dir

EXPERT

keep_cross_validation_models ☐

keep_cross_validation_predictions ☐

keep_cross_validation_fold_assignment ☐

build_tree_one_node ☐

sample_rate_per_class _____

binomial_double_trees ☐

col_sample_rate_change_per_level 1 _____

calibrate_model ☐

calibration_frame [(Choose...) _____]

⚏ Build Model

⚏ Job

Run Time	00:00:09.46
Remaining Time	00:00:00.0
Type	Model
Key	🔍 drf-ddb53fc2-2d7e-442c-87e3-c5b86e1024ec
Description	DRF
Status	DONE
Progress	100%
	Done.
Actions	🔍 View

CS

📦 Model

Model ID: drf-ddb53fc2-2d7e-442c-87e3-c5b86e1024ec

Algorithm: Distributed Random Forest

Actions: [🔄 Refresh] [⚡ Predict...] [⬇ Download POJO]
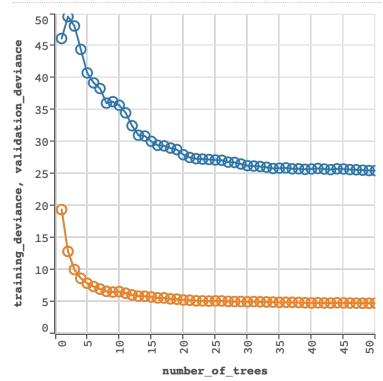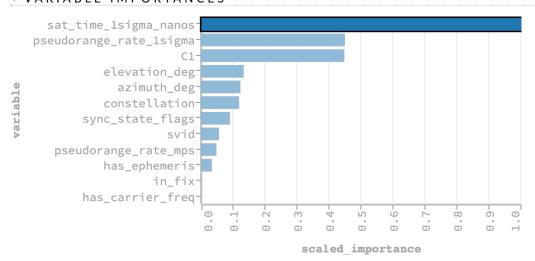
[⬇ Download Model Deployment Package (MOJO)] [💾 Export] [☰ Inspect] [🗑 Delete]

[⬇ Download Gen Model]

▸ M O D E L   P A R A M E T E R S

▾ S C O R I N G   H I S T O R Y - D E V I A N C E

▾ V A R I A B L E   I M P O R T A N C E S

Selected mark(s):

variable

relative_importance

scaled_importance

percentage

▸ O U T P U T

▸ OUTPUT - MODEL SUMMARY

▾ OUTPUT - SCORING HISTORY

2019-01-17 13:58:34	7.300 sec	22	5.2283	2.3061	27.3349
2019-01-17 13:58:34	7.348 sec	23	5.2217	2.3012	27.2662
2019-01-17 13:58:34	7.399 sec	24	5.2165	2.3013	27.2116
2019-01-17 13:58:34	7.448 sec	25	5.2093	2.3061	27.1367
2019-01-17 13:58:34	7.505 sec	26	5.2047	2.3090	27.0890
2019-01-17 13:58:34	7.557 sec	27	5.1772	2.2998	26.8035
2019-01-17 13:58:34	7.615 sec	28	5.1722	2.2921	26.7516
2019-01-17 13:58:34	7.671 sec	29	5.1480	2.2822	26.5020
2019-01-17 13:58:34	7.728 sec	30	5.1234	2.2755	26.2495

▸ OUTPUT - TRAINING_METRICS

▸ OUTPUT - VALIDATION_METRICS

▸ OUTPUT - CROSS_VALIDATION_METRICS

▸ OUTPUT - CROSS-VALIDATION METRICS SUMMARY

▾ OUTPUT - VARIABLE IMPORTANCES

variable	relative_importance	scaled_importance	percentage
sat_time_1sigma_nanos	73680792.0	1.0	0.4018
pseudorange_rate_1sigma	33020176.0	0.4482	0.1801
C1	32871958.0	0.4461	0.1793
elevation_deg	9721174.0	0.1319	0.0530
azimuth_deg	8950501.0	0.1215	0.0488
constellation	8643897.0	0.1173	0.0471
sync_state_flags	6544614.5000	0.0888	0.0357
svid	4030777.2500	0.0547	0.0220
pseudorange_rate_mps	3439622.7500	0.0467	0.0188
has_ephemeris	2380973.5000	0.0323	0.0130
in_fix	49703.5352	0.0007	0.0003
has_carrier_freq	40667.3047	0.0006	0.0002

▼ PREVIEW POJO

</> Preview POJO