# GBM\_Airlines\_Classification

**☎** 1 / 1 files imported.

Files 4 https://s3.amazonaws.com/h2o-public-test-data/smalldata/airlines/allyears2k\_headers.zip

Actions Parse these files...

## Setup Parse

### PARSE CONFIGURATION

Sources 4 https://s3.amazonaws.com/h2o-public-test-data/smalldata/airlines/allyears2k\_headers.zip

ID allyears2k\_headers.hex

Parser CSV :
Separator ;: '44' :

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...

1	Year	Numeric :	1987	1987	1987	1987	1987	1987	1987	1987	1987
2	Month	Numeric :	10	10	10	10	10	10	10	10	10
3	DayofMonth	Numeric :	14	15	17	18	19	21	22	23	24
4	DayOfWeek	Numeric #	3	4	6	7	1	3	4	5	6
5	DepTime	Numeric :	741	729	741	729	749	728	728	731	744
6	CRSDepTime	Numeric :	730	730	730	730	730	730	730	730	730
7	ArrTime	Numeric :	912	903	918	847	922	848	852	902	908
8	CRSArrTime	Numeric #	849	849	849	849	849	849	849	849	849
9	UniqueCarrie	Enum ‡	PS								
10	FlightNum	Numeric #	1451	1451	1451	1451	1451	1451	1451	1451	1451

11	TailNum	Enum ‡	NA								
12	ActualElapse	Numeric :	91	94	97	78	93	80	84	91	84
13	CRSElapsedT-	Numeric #	79	79	79	79	79	79	79	79	79
14	AirTime	Numeric :	NA								
15	ArrDelay	Numeric :	23	14	29	-2	33	-1	3	13	19
♣ Previous page ♣ Next page											

**■** Parse

### **J**ob

Run Time 00:00:01.620

Type Frame

Key **Q** allyears2k\_headers.hex

Description Parse

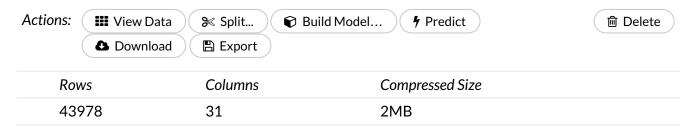
Status DONE

Progress 100%

**DONE** 

Actions Q View

# ■ allyears2k\_headers.hex



### ▼ COLUMN SUMMARIES

label	type Mi	ssing	Zeros	+Inf	- Inf	min	max	mean	sigma	cardi
Year	int	Θ	0	Θ	0	1987.0	2008.0	1997.5000	6.3444	
Month	int	0	0	0	0	1.0	10.0	1.4091	1.8747	
DayofMonth	int	0	0	Θ	0	1.0	31.0	14.6011	9.1758	
DayOfWeek	int	0	Θ	0	0	1.0	7.0	3.8206	1.9050	

DepTime	int	1086	0	0	0	1.0	2400.0	1345.8467	465.3409
CRSDepTime	int	Θ	569	Θ	0	0	2359.0	1313.2229	476.2511
ArrTime	int	1195	0	Θ	0	1.0	2400.0	1504.6341	484.3475
CRSArrTime	int	0	569	0	0	0	2359.0	1485.2892	492.7504
UniqueCarrier	enum	0	724	Θ	0	Θ	9.0	6.9355	2.0512
FlightNum	int	0	Θ	0	0	1.0	3949.0	818.8430	777.4044
TailNum	enum	32	2	Θ	0	Θ	3500.0	2376.0975	1168.7593
ActualElapsedTime	int	1195	0	0	0	16.0	475.0	124.8145	73.9744
CRSElapsedTime	int	13	0	0	0	17.0	437.0	125.0216	73.4016
AirTime	int	16649	0	0	0	14.0	402.0	114.3161	69.6363
ArrDelay	int	1195	1514	0	0	-63.0	475.0	9.3171	29.8402
DepDelay	int	1086	6393	0	Θ	-16.0	473.0	10.0074	26.4388
Origin	enum	0	59	Θ	Θ	0	131.0	61.1830	37.6441
Dest	enum	Θ	172	Θ	Θ	Θ	133.0	78.5526	33.9301
Distance	int	35	0	Θ	0	11.0	3365.0	730.1822	578.4380
TaxiIn	int	16026	623	0	0	0	128.0	5.3814	4.2020

← Previous 20 Columns

→ Next 20 Columns

- ▶ CHUNK COMPRESSION SUMMARY
- ▶ FRAME DISTRIBUTION SUMMARY

# Build a Model

Select an algorithm: (Algorithm)

### Build Model

# **J**ob

Run Time 00:00:02.2

Type Model

Key **Q** gbm\_pojo\_test

Description GBM

Status DONE

Progress 100%

**DONE** 

Actions Q View

# **₩** Model

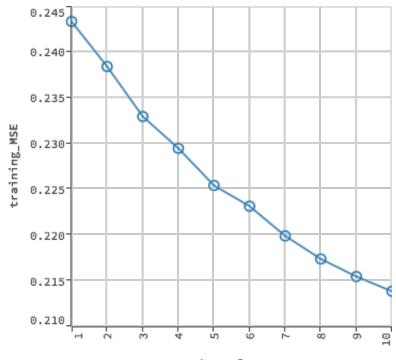
Model ID: gbm\_pojo\_test

Algorithm: Gradient Boosting Machine

Actions: ( ↑ Predict... ) ( ♣ Download POJO ) ( ■ Inspect ) ( ๗ Delete

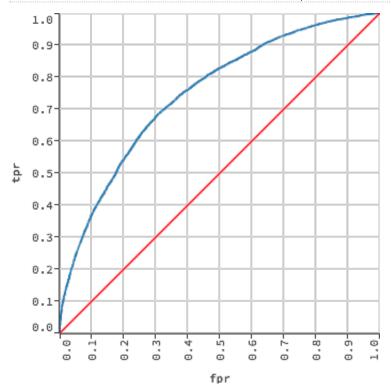
### ▶ MODEL PARAMETERS

### ▼ SCORING HISTORY - MSE



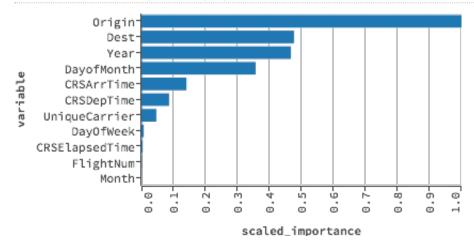
number\_of\_trees

#### ▼ ROC CURVE - TRAINING METRICS , AUC = 0.749372



Threshold:		Criterion:	
Choose	•	Choose	

#### **▼ VARIABLE IMPORTANCES**



▶ OUTPUT

▶ OUTPUT - MODEL SUMMARY

▶ OUTPUT - SCORING HISTORY

▶ OUTPUT - TRAINING\_METRICS

DOMAIN

▶ OUTPUT - TRAINING\_METRICS - METRICS FOR THRESHOLDS (BINOMIAL METRICS AS A FUNCTION OF CLASSIFICATION THRESHOLDS)

- ► OUTPUT TRAINING\_METRICS MAXIMUM METRICS (MAXIMUM METRICS AT THEIR RESPECTIVE THRESHOLDS)

  ► OUTPUT VARIABLE IMPORTANCES

  ▼ PREVIEW POJO
- </>
  Preview POJO