

ANNEXES

Annexe n°1 : Tableau avec caractéristiques démographiques

	Age à la SCP	Genre	Etiologie	Antécédents familiaux
1	5	F	<i>KMT2B</i>	1
2	7,5	F	Inconnue	0
3	8	F	Inconnue	0
4	14	F	Inconnue	1
5	12,5	M	<i>TOR1A</i>	0
6	13,5	M	<i>TOR1A</i>	1
7	7,5	F	Inconnue	1
8	8	F	Inconnue	1
9	20	M	<i>PANK2</i>	0
10	32	M	<i>PANK2</i>	1
11	10,5	F	<i>TOR1A</i>	1
12	14	F	<i>TOR1A</i>	1
13	12	F	<i>PANK2</i>	0
14	17	F	<i>PANK2</i>	1
15	7	F	Encéphalopathie anoxique	0
16	6	F	Encéphalopathie anoxique	0
17	18	M	<i>HPRT1</i>	0
18	16	F	Inconnue	0
19	13,5	F	<i>TOR1A</i>	0
20	8,5	F	<i>TOR1A</i>	0
21	15	M	Encéphalopathie mitochondriale	1
22	12,5	M	Encéphalopathie anoxique	0
23	13	M	<i>TOR1A</i>	1
24	9	M	<i>TOR1A</i>	0
25	42,5	M	Inconnue	1
26	18,5	M	Inconnue	0
27	11	F	Inconnue	1
28	38	F	Inconnue	1
29	34	F	Inconnue	1
30	12,5	F	<i>PANK2</i>	0
31	10,5	M	<i>PANK2</i>	0
32	14	M	Encéphalopathie anoxique	0
33	17	M	<i>TOR1A</i>	1
34	11	M	Inconnue	0
35	19	M	Inconnue	1

36	18	F	Inconnue	0
37	22	M	Inconnue	0
38	26,5	M	Inconnue	0
39	11	F	THAP1	0
40	13	M	Encéphalopathie mitochondriale	0

Annexe n°2 : Tableau GEMP

Sujet n°	Repos	Action	Posture	Caractéristiques	Tronc	Membre supérieur	Membre inférieur	Oro-facial	Cervical	Bradkinésie	Myoclonie	Athétose	Chorée	Tremblement	Ataxie
1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	1
2	1	2	1	0	1	1	1	1	1	1	0	0	0	0	1
3	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0
4	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0
5	1	2	1	1	1	1	1	1	1	0	0	0	0	1	0
6	1	2	1	0	1	1	1	1	1	0	0	0	0	0	0
7	1	2	1	1	1	1	1	1	1	1	1	0	0	0	1
8	1	2	1	0	1	1	1	1	1	0	0	0	0	0	0
9	0	2	0	1	1	1	1	1	1	1	0	0	0	0	0
10	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0
11	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0
12	1	2	1	0	1	1	1	1	1	0	0	0	0	0	0
13	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0
14	0	2	1	1	1	1	1	1	1	1	0	0	0	0	0
15	1	2	1	0	1	1	1	1	1	0	0	1	0	0	1
16	0	2	1	0	1	1	1	0	1	0	0	0	0	0	0
17	1	1	1	2	1	1	1	1	1	0	0	0	1	0	0
18	1	2	1	1	1	1	1	1	1	1	0	0	0	0	1
19	1	2	1	2	1	1	1	0	1	0	0	0	0	1	0
20	0	2	1	0	1	1	1	1	0	0	0	0	0	1	0
21	1	1	1	2	1	1	1	1	1	1	1	0	0	0	0
22	1	1	2	0	1	1	1	1	1	0	0	1	0	0	1
23	1	1	2	0	1	1	1	0	1	0	0	0	0	0	0

24	0	2	0	0	1	1	1	1	1	0	0	0	0	1	0
25	1	2	1	1	1	1	1	1	1	0	0	0	0	1	0
26	1	1	1	2	1	1	1	1	1	0	0	0	0	0	1
27	0	1	2	0	1	1	1	1	1	0	0	0	0	0	1
28	1	1	2	0	1	1	1	1	1	0	0	0	1	0	0
29	1	2	1	0	1	1	1	1	1	0	0	0	0	0	0
30	0	2	1	1	1	1	1	1	1	1	0	0	0	0	1
31	0	2	0	1	1	1	1	1	1	1	0	0	0	0	0
32	0	2	1	1	1	1	1	1	1	0	0	0	0	0	0
33	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0
34	1	2	1	0	1	1	1	1	1	1	0	0	1	1	1
35	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
36	1	2	1	0	1	1	1	1	1	1	1	0	0	1	0
37	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
38	1	2	1	2	1	1	0	1	1	0	0	0	0	0	0
39	1	2	1	0	1	1	1	1	1	0	0	0	0	1	0
40	1	1	1	0	1	1	1	1	1	0	0	0	1	0	1

Annexe n°3 : Tableau nombre vidéo pré/postopératoire

Sujet n°	Vidéo Préopératoire	Vidéo Postopératoire
1	1	6
2	1	5
3	0	5
4	0	2
5	0	0
6	0	0
7	1	1
8	1	1
9	1	1
10	1	1
11	1	1
12	2	1
13	1	1
14	1	6
15	1	4
16	1	12
17	1	1
18	2	1
19	0	0

20	1	12
21	0	0
22	0	12
23	1	1
24	0	12
25	1	9
26	0	0
27	1	1
28	1	10
29	4	1
30	2	1
31	1	1
32	0	6
33	0	14
34	8	5
35	10	1
36	0	10
37	1	0
38	0	16
39	7	1
40	0	0

Annexe n°4 : Tableau score M-BFMDRS et évolution

Sujet n°	Score preopératoire	Score à 6 mois	Score à 1 année	Dernier score
1	91	2	6	
2	47	13.5	22	69
3	80	27	3	
4	108.5	46.5	26	24.5
5				
6	65.5	20	20	25.5
7	49	12.5		56
8	63		12	7
9	55	21.5	19	31
10	45.5	5.5	8	25.5
11	81	0	0	3
12	63	0	2	3
13	71	6	6	26.5
14	41.5	51	29.5	36

15	81.5	48.5	48.5	64
16	42.5	10	7	7
17	65			
18				
19	22	3	2	0
20	35.5	0	0	0
21	88.5			
22	56.5	42	58	
23	69	4	2	2
24	51	1	0	15.5
25	51	49.5	49.5	66
26	58.5	29.5	29	49
27	54	19	19	
28	29.5	14.5	13.5	1
29	75.5	56.5	51	52.5
30	45	10	31	
31	36	42	45	62
32	34	13	2.5	10
33	35.5	23	38.5	37
34	50	48	35	
35	39.5			9
36	53	24	24	
37		48.5	52.5	81
38	73	7.5	8	13
39	62			36
40	69.5	54	57.5	79

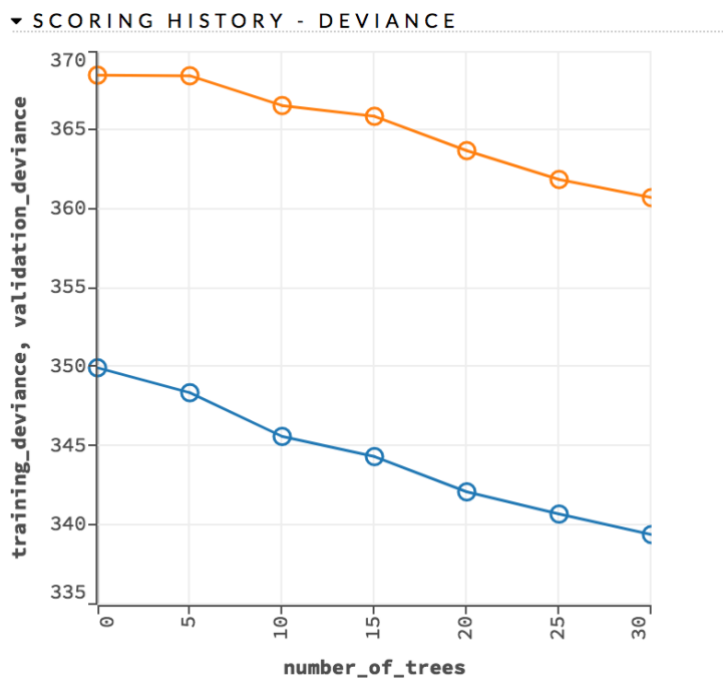
Annexe n°5 : Tableau IRM qualitatif

Sujet n°	hypo_G_pallidum_T1	hypo_D_pallidum_T1	Hyper_G_pallidum_T1	Hyper_D_pallidum_T1	Atrophie_G_pallidum_T1	Atrophie_D_pallidum_T1	hypo_G_pallidum_T2	hypo_D_pallidum_T2	Hyper_G_pallidum_T2	Hyper_D_pallidum_T2	Atrophie_G_pallidum_T2	Atrophie_D_pallidum_T2
1	0	0	0	0	0	0	0	0	0	0	0	0

2	0	0	0	0	0	0						
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	1	1						
5	0	0	0	0	0	0						
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	1	1	0	0	0	0
9												
10	1	1	0	0	1	1						
11	0	0	0	0	0	0						
12	0	0	0	0	0	0						
13												
14	1	1	0	0	1	1	1	1	1	1	1	1
15	0	0	0	0	0	0						
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	1	1	0	0	1	1	0	0	1	1	1	1
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0						
21	0	0	0	0	1	1	0	0	1	1	1	1
22	0	0	0	0	1	1	0	0	0	1	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	1	1	1	1	0	0	1	1
28	1	1	0	0	0	0	1	1	1	1	0	0
29	0	0	0	0	0	0	1	1	0	0	0	0
30	1	1	0	0	1	1	1	1	1	1	1	1
31	1	1	0	0	1	1	1	1	1	1	0	0
32												
33	0	0	0	0	0	0						
34	1	0	0	0	0	0	0	0	1	1	0	0
35	0	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	1	1	1	0	0	0
37												
38	0	0	0	0	0	0						

39	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	1	1	0	0	0	0	1	1

Annexe n°6 : Résultat statistiques



variable	relative_importance	scaled_importance	percentage
Age_at_wor	11576.1855	1.0	0.3784
Age_at_sym	10710.3574	0.9252	0.3501
Action	3054.5535	0.2639	0.0998
Symptom_di	1863.0944	0.1609	0.0609
Etiology_clas	1097.3845	0.0948	0.0359
Disease_duri	901.3794	0.0779	0.0295
Etiology_inh	684.9297	0.0592	0.0224
Age_at_first	463.4360	0.0400	0.0151
Hypo_RightG	243.3604	0.0210	0.0080
Gender	0	0	0
Family_histo	0	0	0
Classification	0	0	0
Classification	0	0	0
Classification	0	0	0
Etiology_ner	0	0	0
Tone_abnorr	0	0	0
Tone_abnorr	0	0	0
Abnormal_m	0	0	0
Abnormal_pi	0	0	0
Hypo_LeftG	0	0	0
Hypo_Right	0	0	0
Hypotrophy_	0	0	0
Hypotrophy_	0	0	0
Hypo_LeftGP	0	0	0
Hyper_LeftG	0	0	0
Hyper_Right	0	0	0
Hypotrophy_	0	0	0
Hypotrophy_	0	0	0
Rest	0	0	0
Posture	0	0	0
Characteristic	0	0	0
Lower_lim	0	0	0
Oro_facial	0	0	0
Cervical	0	0	0
Bradykinesia	0	0	0
Myoclonus	0	0	0
Athetosis	0	0	0
Chorea	0	0	0
Tremor	0	0	0
Ataxia	0	0	0

MODEL PARAMETERS

Show all parameters

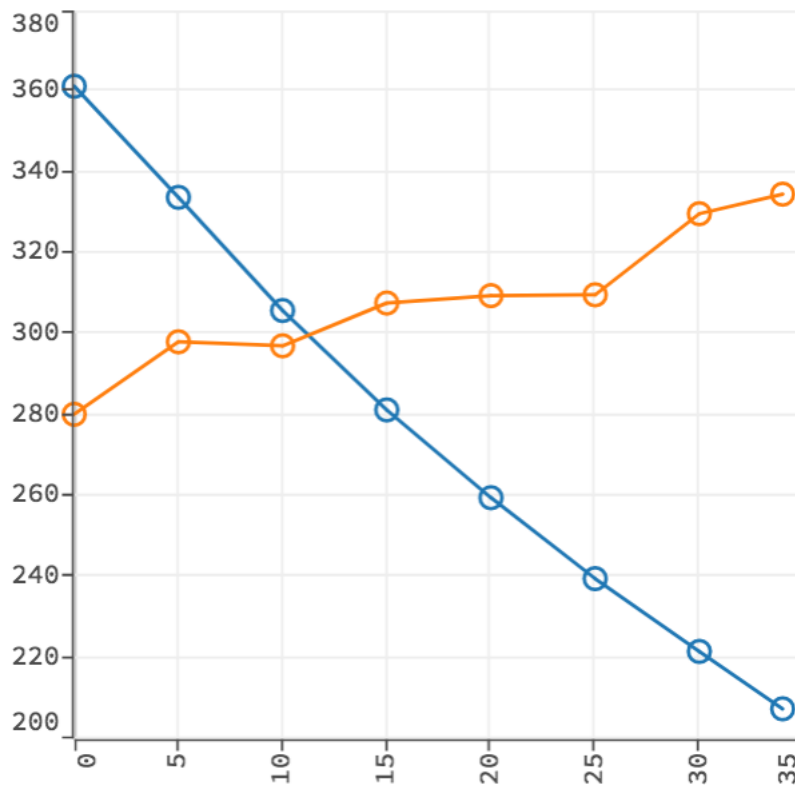
Parameter	Value	Description
model_id	GBM_grid_1_AutoML_20181211_112549_model_10	Destination id for this model; auto-generated if not specified.
training_frame	automl_training_GEMP_11122018_Pre_DBS.hex	Id of the training data frame.
validation_frame	automl_validation_GEMP_11122018_Pre_DBS.hex	Id of the validation data frame.
nfolds	5	Number of folds for K-fold cross-validation (0 to disable or >= 2).
keep_cross_validation_predictions	true	Whether to keep the predictions of the cross-validation models.
score_tree_interval	5	Score the model after every so many trees. Disabled if set to 0.
fold_assignment	Modulo	Cross-validation fold assignment scheme, if fold_column is not specified. The 'Stratified' option will stratify the folds based on the response variable, for classification problems.
response_column	Pre-DBS_M-BFMDRS	Response variable column.
ignored_columns		Names of columns to ignore for training.
ntrees	30	Number of trees.
max_depth	14	Maximum tree depth.
stopping_metric	deviance	Metric to use for early stopping (AUTO: logloss for classification, deviance for regression)
stopping_tolerance	0.05	Relative tolerance for metric-based stopping criterion (stop if relative improvement is not at least this much)
seed	6180766362557279000	Seed for pseudo random number generator (if applicable)
learn_rate	0.005	Learning rate (from 0.0 to 1.0)
distribution	gaussian	Distribution function
sample_rate	0.7	Row sample rate per tree (from 0.0 to 1.0)
col_sample_rate	0.4	Column sample rate (from 0.0 to 1.0)
col_sample_rate_per_tree	0.7	Column sample rate per tree (from 0.0 to 1.0)
min_split_improvement	0.0001	Minimum relative improvement in squared error reduction for a split to happen

▼ MODELS

models sorted in order of mean_residual_deviance, best first

model_id	mean_residual_deviance	rmse	mse	mae	rmsle
1 GBM_grid_1_AutoML_20181211_112549_model_10	380.6562579898468	19.510414090681078	380.6562579898468	15.86921632959585	0.350745396004946
2 GBM_grid_1_AutoML_20181211_112549_model_21	380.8625907286985	19.515701133413025	380.8625907286985	15.826778925828208	0.351029090659908
3 GBM_grid_1_AutoML_20181211_112549_model_28	381.1519174861537	19.5231123923967	381.1519174861537	15.940789592437262	0.351230261714188
4 GBM_grid_1_AutoML_20181211_112549_model_3	381.65976605702673	19.536114405301447	381.65976605702673	15.843446049923706	0.351532657329525
5 GBM_grid_1_AutoML_20181211_112549_model_2	385.503173652966	19.63423473560826	385.503173652966	15.909093947040141	0.352978800998016
6 GBM_grid_1_AutoML_20181211_112549_model_15	411.8195792345608	20.293338296952545	411.8195792345608	16.79991350710297	0.362888401863473
7 GBM_4_AutoML_20181211_112549	438.3106451549529	20.935869820835077	438.3106451549529	17.32906529307228	0.374087694430556
8 GBM_3_AutoML_20181211_112549	439.3070872060279	20.959653794994512	439.3070872060279	17.309399454562016	0.374856357768956
9 GBM_2_AutoML_20181211_112549	443.7675998215177	21.06579217170619	443.7675998215177	17.34854658733683	0.377306520280582
10 GBM_grid_1_AutoML_20181211_112549_model_25	463.18919371683694	21.521830631171618	463.18919371683694	16.75729076691248	0.380629715719365
11 XRT_1_AutoML_20181211_112549	488.85709751143816	22.11011301444292	488.85709751143816	17.246213616832854	0.381727523856807
12 GBM_1_AutoML_20181211_112549	544.5825074558178	23.33629163890051	544.5825074558178	18.184926616194197	0.408139666741674
13 DRF_1_AutoML_20181211_112549	554.7560789343919	23.553260473539368	554.7560789343919	18.580894661414156	0.419531092062316
14 GBM_grid_1_AutoML_20181211_112549_model_26	756.066912567602	27.496670936089735	756.066912567602	22.069691807001558	0.490695034233595
15 GBM_grid_1_AutoML_20181211_112549_model_23	791.0424071335273	28.125476122788168	791.0424071335273	23.61291881484024	0.525965036665748
16 GBM_grid_1_AutoML_20181211_112549_model_19	890.6604412621625	29.843934748323026	890.6604412621625	25.309679144671573	0.557387456998555
17 GBM_grid_1_AutoML_20181211_112549_model_14	965.0383424968953	31.065066272211546	965.0383424968953	20.925719715665377	0.524209874504082

▼ SCORING HISTORY - DEVIANCE



▼ MODEL PARAMETERS

Show all parameters

Parameter	Value	Description
model_id	GBM_grid_1_AutoML_20181211_113237_model_2	Destination id for this model; auto-generated if not specified.
training_frame	automl_training_GEMP_11122018_6_months_DBS.hex	Id of the training data frame.
validation_frame	automl_validation_GEMP_11122018_6_months_DBS.hex	Id of the validation data frame.
nfolds	5	Number of folds for K-fold cross-validation (0 to disable or >= 2).
keep_cross_validation_predictions	true	Whether to keep the predictions of the cross-validation models.
score_tree_interval	5	Score the model after every so many trees. Disabled if set to 0.
fold_assignment	Modulo	Cross-validation fold assignment scheme, if fold_column is not specified. The 'Stratified' option will stratify the folds based on the response variable, for classification problems.
response_column	6-Mo_M-BFMDRS	Response variable column.
ignored_columns		Names of columns to ignore for training.
ntrees	34	Number of trees.
max_depth	9	Maximum tree depth.
min_rows	1	Fewest allowed (weighted) observations in a leaf.
stopping_metric	deviance	Metric to use for early stopping (AUTO: logloss for classification, deviance for regression)
stopping_tolerance	0.05	Relative tolerance for metric-based stopping criterion (stop if relative improvement is not at least this much)
seed	-8948364997797719000	Seed for pseudo random number generator (if applicable)
learn_rate	0.01	Learning rate (from 0.0 to 1.0)
distribution	gaussian	Distribution function
sample_rate	0.8	Row sample rate per tree (from 0.0 to 1.0)
col_sample_rate	0.4	Column sample rate (from 0.0 to 1.0)
col_sample_rate_per_tree	0.4	Column sample rate per tree (from 0.0 to 1.0)

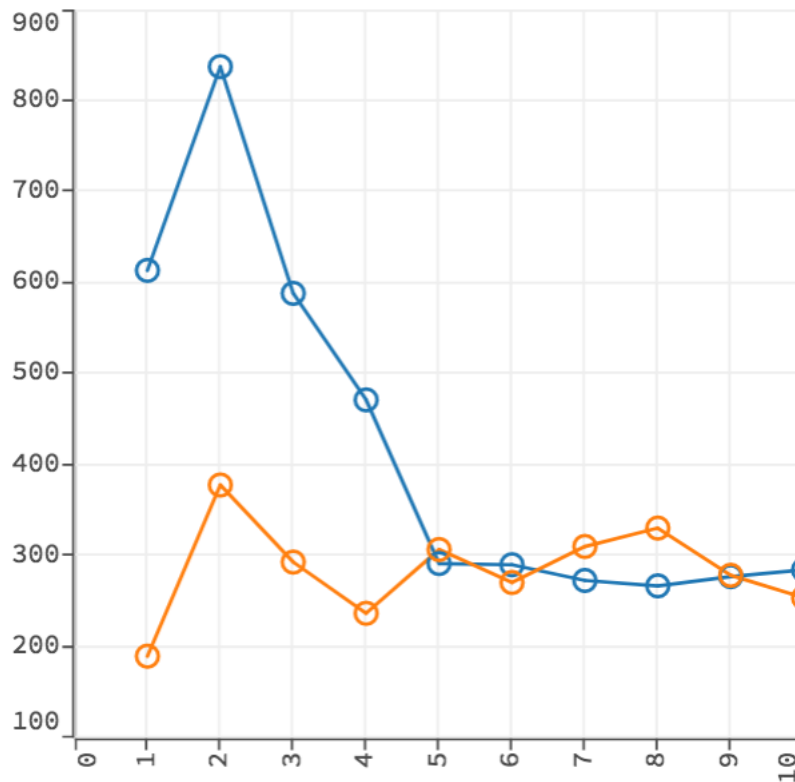
▼ MODELS

models sorted in order of mean_residual_deviance, best first

model_id	mean_residual_deviance	rmse	mse	mae	rmsle
0 GBM_grid_1_AutoML_20181211_113237_model_2	353.5296558159941	18.802384311996022	353.5296558159941	16.442780296893698	1.326650741885861
1 GBM_grid_1_AutoML_20181211_113237_model_12	357.68516855448195	18.912566419036892	357.68516855448195	16.540790208725166	1.3535507369015647
2 GBM_grid_1_AutoML_20181211_113237_model_22	368.94658754097327	19.207982391208432	368.94658754097327	16.88049005133913	1.3586538208425651
3 GBM_grid_1_AutoML_20181211_113237_model_14	371.40062986979007	19.27175731140754	371.40062986979007	16.761671453268534	1.3741838792041516
4 GLM_grid_1_AutoML_20181211_113237_model_1	372.06385155544035	19.288956725428164	372.06385155544035	16.76405841997647	1.3752836882501522
5 GBM_grid_1_AutoML_20181211_113237_model_10	373.22602820170755	19.319058677940486	373.22602820170755	16.814910796318383	1.3748070014650433
6 GBM_grid_1_AutoML_20181211_113237_model_6	375.46883176796655	19.377018134067132	375.46883176796655	17.040817726179554	1.3579973228217062
7 GBM_4_AutoML_20181211_113237	444.52595352069255	21.083784136646166	444.52595352069255	18.50250574963694	1.2944667159451826
8 GBM_3_AutoML_20181211_113237	449.60264098399546	21.203835525300498	449.60264098399546	18.511920819690154	1.3183744018416963
9 GBM_grid_1_AutoML_20181211_113237_model_11	456.44250402185315	21.36451506638644	456.44250402185315	18.69922409070335	1.3409193416816318
10 GBM_grid_1_AutoML_20181211_113237_model_19	459.0765601618202	21.426071972291613	459.0765601618202	18.751863599769514	1.2460998838261361
11 GBM_2_AutoML_20181211_113237	461.61523773790867	21.48523301567634	461.61523773790867	18.816662658730227	1.3436385021049806
12 DRF_1_AutoML_20181211_113237	467.81488303099013	21.629028712149562	467.81488303099013	18.56642857142857	1.319263085602488
13 XRT_1_AutoML_20181211_113237	498.7512476878913	22.332739368198684	498.7512476878913	19.2562397656021	1.268879177771981
14 GBM_1_AutoML_20181211_113237	525.0505645419819	22.913981856979415	525.0505645419819	19.783219713280264	1.4135548376820528
15 GBM_grid_1_AutoML_20181211_113237_model_5	591.7269018270076	24.325437340919642	591.7269018270076	20.661899451002533	NaN
16 GBM_grid_1_AutoML_20181211_113237_model_8	671.2083734764786	25.907689466188966	671.2083734764786	22.19077542742607	1.5701024457164408

variable	relative_importance	scaled_importance	percentage
Disease_dur	37109.1211	1.0	0.1634
Age_at_first	17962.4023	0.4840	0.0791
Age_at_wor	14499.8682	0.3907	0.0638
Etiology_clas	12162.2803	0.3277	0.0535
Age_at_sym	10803.0381	0.2911	0.0476
Etiology_inh	10637.7588	0.2867	0.0468
Etiology_ner	10193.9023	0.2747	0.0449
Symptom_di	9518.7461	0.2565	0.0419
Classificatio	9284.4209	0.2502	0.0409
Hypotrophy_	6228.8237	0.1679	0.0274
Chorea	6145.2710	0.1656	0.0271
Classificatio	5514.1484	0.1486	0.0243
Classificatio	5455.4854	0.1470	0.0240
Characteristic	5179.4033	0.1396	0.0228
Bradykinesia	5151.7168	0.1388	0.0227
Hypotrophy_	5126.4072	0.1381	0.0226
Posture	4828.1958	0.1301	0.0213
Gender	4287.2197	0.1155	0.0189
Hypo_LeftGP	4255.7163	0.1147	0.0187
Hyper_Right	4170.5815	0.1124	0.0184
Oro_facial	4160.2646	0.1121	0.0183
Hypo__LeftG	3942.7683	0.1062	0.0174
Athetosis	3762.4302	0.1014	0.0166
Hypo_RightG	2807.1140	0.0756	0.0124
Hyper_LeftG	2708.8762	0.0730	0.0119
Action	2446.9131	0.0659	0.0108
Tone_abnorr	2275.1169	0.0613	0.0100
Family_histo	2225.3892	0.0600	0.0098
Abnormal_m	2200.6311	0.0593	0.0097
Lower_lim	1881.2186	0.0507	0.0083
Hypotrophy_	1729.0918	0.0466	0.0076
Tone_abnorr	1579.6765	0.0426	0.0070
Rest	1551.2942	0.0418	0.0068
Hypo__Right	1422.2887	0.0383	0.0063
Hypotrophy_	1368.2943	0.0369	0.0060
Tremor	935.1849	0.0252	0.0041
Cervical	703.8404	0.0190	0.0031
Myoclonus	554.4759	0.0149	0.0024
Ataxia	239.2988	0.0064	0.0011
Abnormal_pi	129.9881	0.0035	0.0006

▼ SCORING HISTORY - DEVIANCE



▼ MODEL PARAMETERS

▼ Show all parameters

Parameter	Value	Description
model_id	DRF_1_AutoML_20181211_113655	Destination id for this model; auto-generated if not specified.
training_frame	automl_training_GEMP_11122018_1Y_DBS.hex	Id of the training data frame.
validation_frame	automl_validation_GEMP_11122018_1Y_DBS.hex	Id of the validation data frame.
nfolds	5	Number of folds for K-fold cross-validation (0 to disable or >= 2).
keep_cross_validation_predictions	true	Whether to keep the predictions of the cross-validation models.
fold_assignment	Modulo	Cross-validation fold assignment scheme, if fold_column is not specified. The 'Stratified' option will stratify the folds based on the response variable, for classification problems.
response_column	1Y_M-BFMDRS	Response variable column.
ignored_columns		Names of columns to ignore for training.
ntrees	10	Number of trees.
stopping_tolerance	0.05	Relative tolerance for metric-based stopping criterion (stop if relative improvement is not at least this much)
seed	5983678804475209000	Seed for pseudo random number generator (if applicable)
distribution	gaussian	Distribution function

▼ SCORING HISTORY - DEVIANCE

variable	relative_importance	scaled_importance	percentage
Disease_dur	23205.4434	1.0	0.3084
Etiology_clas	5426.5571	0.2338	0.0721
Age_at_wor	5350.0908	0.2306	0.0711
Etiology_inhi	5247.3906	0.2261	0.0697
Athetosis	5060.0054	0.2181	0.0672
Hypotrophy_	3263.2683	0.1406	0.0434
Etiology_ner	3064.6685	0.1321	0.0407
Age_at_sym	2519.6499	0.1086	0.0335
Characteristic	2268.2375	0.0977	0.0301
Family_histo	1693.4922	0.0730	0.0225
Tone_abnorr	1649.0105	0.0711	0.0219
Symptom_di	1640.7916	0.0707	0.0218
Hypotrophy_	1500.0875	0.0646	0.0199
Chorea	1384.9246	0.0597	0.0184
Rest	1251.8263	0.0539	0.0166
Hypo_LeftG	1165.8000	0.0502	0.0155
Hypo_RightG	1092.6125	0.0471	0.0145
Abnormal_m	1065.2750	0.0459	0.0142
Age_at_first	844.2734	0.0364	0.0112
Hypo_Right	838.1250	0.0361	0.0111
Hyper_LeftG	757.3785	0.0326	0.0101
Action	678.3750	0.0292	0.0090
Bradykinesia	624.5417	0.0269	0.0083
Posture	622.5964	0.0268	0.0083
Hyper_Right	568.9271	0.0245	0.0076
Abnormal_pi	533.4083	0.0230	0.0071
Oro_facial	533.0834	0.0230	0.0071
Hypotrophy_	354.3750	0.0153	0.0047
Classifier	252.0625	0.0109	0.0033
Ataxia	248.6458	0.0107	0.0033
Hypotrophy_	206.1250	0.0089	0.0027
Classifier	198.7545	0.0086	0.0026
Tremor	35.3476	0.0015	0.0005
Gender	32.6250	0.0014	0.0004
Tone_abnorr	32.0	0.0014	0.0004
Myoclonus	25.5208	0.0011	0.0003
Lower_lim	15.1250	0.0007	0.0002
Cervical	2.0	0.0001	0.0
Classifier	1.1250	0.0	0.0
Hypo_LeftGP	0.2500	0.0	0.0

▼ MODELS

models sorted in order of mean_residual_deviance, best first

	model_id	mean_residual_deviance	rmse	mse	mge	rmsle
0	DRF_1_AutoML_20181211_113655	347.5114602789684	18.641659268395838	347.5114602789684	14.841938769242661	1.2338045367435577
1	GBM_grid_1_AutoML_20181211_113655_model_4	349.32928209534145	18.6903526476988	349.32928209534145	15.39126150501559	1.1768398081301639
2	GBM_grid_1_AutoML_20181211_113655_model_10	357.93270593923756	18.919109544036093	357.93270593923756	15.808384789836733	1.3910526121641333
3	GBM_grid_1_AutoML_20181211_113655_model_8	359.14704470302706	18.9511752855338	359.14704470302706	15.871400657398643	1.3739488250596679
4	GBM_grid_1_AutoML_20181211_113655_model_19	370.200613757155	19.240598061316987	370.200613757155	16.037961991160305	1.4064313640822788
5	GBM_grid_1_AutoML_20181211_113655_model_2	373.58537846339584	19.328356848511355	373.58537846339584	16.2622497763458	NaN
6	GBM_grid_1_AutoML_20181211_113655_model_28	374.73931424607343	19.35818468364411	374.73931424607343	15.755711417872389	1.1995897886105418
7	GLM_grid_1_AutoML_20181211_113655_model_1	377.37616164798277	19.42617207913033	377.37616164798277	16.320498771218652	1.4267799040500586
8	GBM_grid_1_AutoML_20181211_113655_model_25	379.04592117492024	19.46910170436531	379.04592117492024	16.3681835833895	1.4157022019137595
9	XRT_1_AutoML_20181211_113655	379.7338838238537	19.486761758277176	379.7338838238537	15.44746056113272	1.1574626645901023
10	GBM_grid_1_AutoML_20181211_113655_model_5	379.8842391058079	19.490619259166905	379.8842391058079	15.904652837167175	1.193867826994909
11	GBM_2_AutoML_20181211_113655	380.35724746295836	19.502749741073906	380.35724746295836	16.3025393065125	1.2452758981668806
12	GBM_grid_1_AutoML_20181211_113655_model_17	383.00113341450884	19.570414748147492	383.00113341450884	16.664679015149286	1.3971313059939245
13	GBM_grid_1_AutoML_20181211_113655_model_18	383.6818513089548	19.587798531457146	383.6818513089548	16.363798298572995	1.2765741213790325
14	GBM_3_AutoML_20181211_113655	388.9969173500162	19.72300477488195	388.9969173500162	16.486502334720754	1.2365050668419395
15	GBM_4_AutoML_20181211_113655	389.84169871638534	19.74440930279722	389.84169871638534	16.53479118277184	1.2548650529415475
16	GBM_grid_1_AutoML_20181211_113655_model_22	394.43986644963115	19.860510226316723	394.43986644963115	16.811429883534423	1.4322810793090104
17	GBM_grid_1_AutoML_20181211_113655_model_26	447.2848109830121	21.14910898792221	447.2848109830121	16.00382499224821	NaN
18	GBM_1_AutoML_20181211_113655	458.44561854704085	21.41134322145719	458.44561854704085	17.601858220964033	1.3951303749100896
19	GBM_grid_1_AutoML_20181211_113655_model_7	561.9982536184307	23.70650234890062	561.9982536184307	18.5318773302584	NaN
20	GBM_grid_1_AutoML_20181211_113655_model_27	563.7636110937946	23.743706768190062	563.7636110937946	19.53642863285138	1.493683437395134
21	GBM_grid_1_AutoML_20181211_113655_model_21	582.7258500266437	24.139715201854468	582.7258500266437	19.53924354938151	NaN

MODEL PARAMETERS

Show all parameters

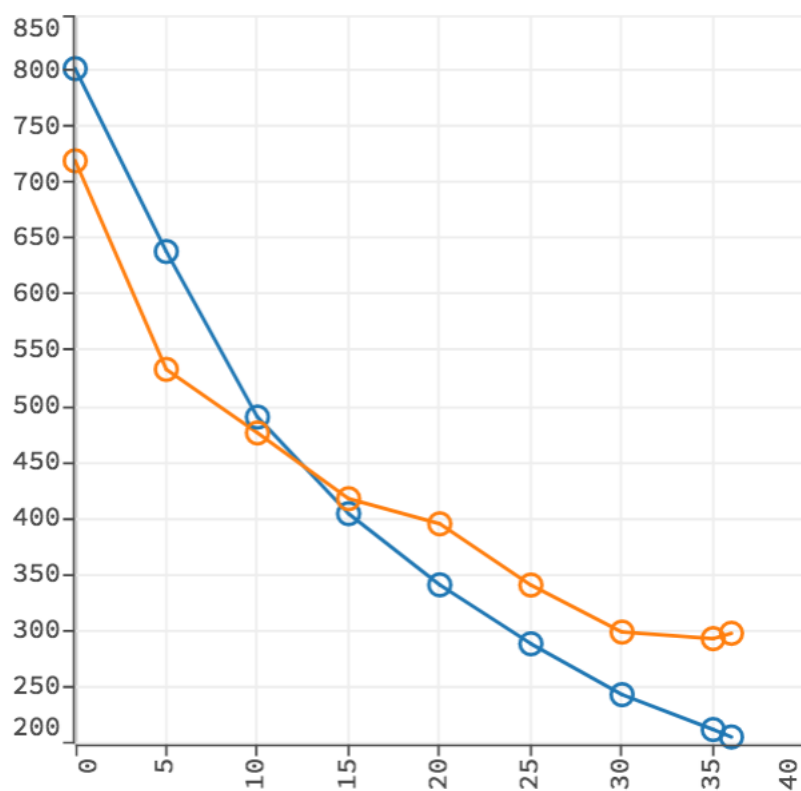
Parameter	Value	Description
model_id	GBM_grid_1_AutoML_20181211_114642_model_1	Destination id for this model; auto-generated if not specified.
training_frame	automl_training_GEMP_11122018_Last_DBS.hex	Id of the training data frame.
validation_frame	automl_validation_GEMP_11122018_Last_DBS.hex	Id of the validation data frame.
nfolds	5	Number of folds for K-fold cross-validation (0 to disable or >= 2).
keep_cross_validation_predictions	true	Whether to keep the predictions of the cross-validation models.
score_tree_interval	5	Score the model after every so many trees. Disabled if set to 0.
fold_assignment	Modulo	Cross-validation fold assignment scheme, if fold_column is not specified. The 'Stratified' option will stratify the folds based on the response variable, for classification problems.
response_column	Last_M-BFMDRS	Response variable column.
ignored_columns		Names of columns to ignore for training.
ntrees	36	Number of trees.
max_depth	8	Maximum tree depth.
min_rows	5	Fewest allowed (weighted) observations in a leaf.
stopping_metric	deviance	Metric to use for early stopping (AUTO: logloss for classification, deviance for regression)
stopping_tolerance	0.05	Relative tolerance for metric-based stopping criterion (stop if relative improvement is not at least this much)
seed	3590301263091478000	Seed for pseudo random number generator (if applicable)
learn_rate	0.05	Learning rate (from 0.0 to 1.0)

MODELS

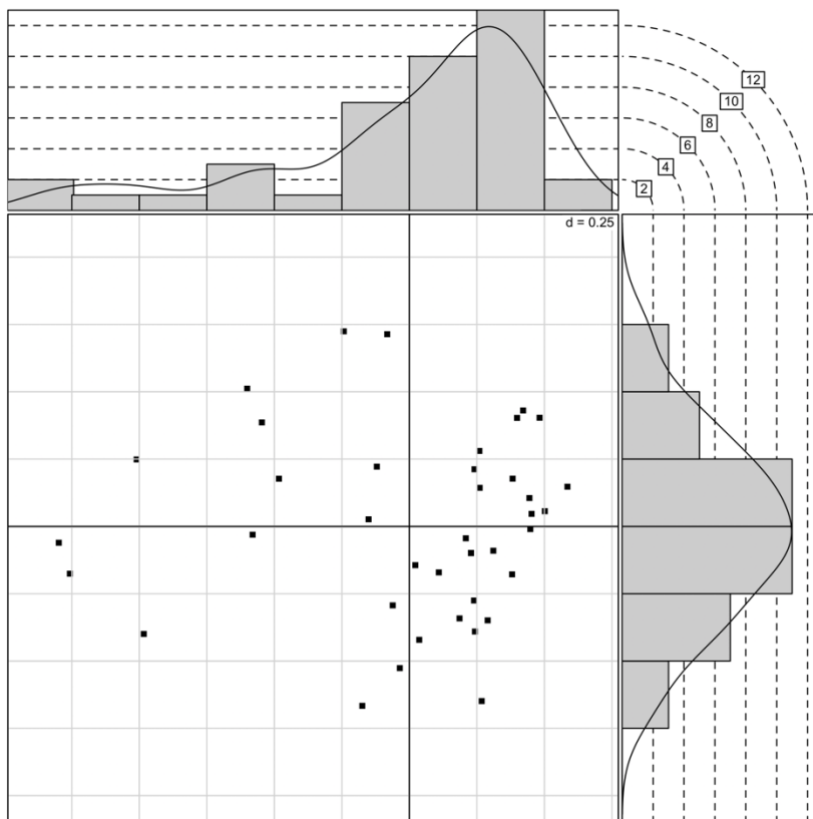
models sorted in order of mean_residual_deviance, best first

model_id	mean_residual_deviance	rmse	rmse	rmse	rmse
0 GBM_grid_1_AutoML_20181211_114642_model_1	855.2222517091702	29.244183211523797	855.2222517091702	25.98092526151015	1.566239648424227
2 GBM_grid_1_AutoML_20181211_114642_model_13	876.758497608734	29.610108031020996	876.758497608734	26.314584951993332	1.6342949044993627
3 GBM_grid_1_AutoML_20181211_114642_model_20	880.2440834648089	29.66890768910795	880.2440834648089	26.223896033213556	1.6510258894283716
4 GBM_grid_1_AutoML_20181211_114642_model_3	909.3473357344277	30.155386512767958	909.3473357344277	26.688965803683118	1.6535554196133593
5 GBM_grid_1_AutoML_20181211_114642_model_9	910.7321192156145	30.1783385761313	910.7321192156145	26.606969083979514	1.6628283221736095
6 GLM_grid_1_AutoML_20181211_114642_model_1	912.3703466771597	30.205468820681457	912.3703466771597	26.641863139849534	1.673850359370077
7 GBM_grid_1_AutoML_20181211_114642_model_6	923.0973761736365	30.382517607559063	923.0973761736365	26.870883919215563	1.6592714178162136
8 GBM_grid_1_AutoML_20181211_114642_model_17	928.4720759450283	30.4708397643555	928.4720759450283	26.890686848947393	1.662452826253078
9 GBM_grid_1_AutoML_20181211_114642_model_18	965.9008782871255	31.078945900514796	965.9008782871255	27.61164336018412	1.578265353610407
10 XRT_1_AutoML_20181211_114642	989.136036036765	31.450533159817258	989.136036036765	28.363194444083206	1.6400398137326597
11 GBM_grid_1_AutoML_20181211_114642_model_10	1065.9923009222305	32.64953752999008	1065.9923009222305	28.10640780633248	NaN
12 GBM_grid_1_AutoML_20181211_114642_model_7	1073.3228128156534	32.76160577285023	1073.3228128156534	28.948299687916027	1.6375029072198954
13 DRF_1_AutoML_20181211_114642	1133.4661474631519	33.66698898718375	1133.4661474631519	30.51279761904762	1.7169413396540512
14 GBM_3_AutoML_20181211_114642	1234.3868096915955	35.133841373974406	1234.3868096915955	30.272056674819055	1.7251619911228258
15 GBM_4_AutoML_20181211_114642	1314.4443982478201	36.255267179374364	1314.4443982478201	30.83052410255334	1.7506187051934785
16 GBM_2_AutoML_20181211_114642	1320.9513126379352	36.344893900490824	1320.9513126379352	31.078382892768445	1.7740711955659327
17 GBM_1_AutoML_20181211_114642	1329.0545912144778	36.45620099810837	1329.0545912144778	31.772182954962794	1.787994262169545
18 GBM_grid_1_AutoML_20181211_114642_model_4	2748.917405123512	52.430119255286	2748.917405123512	45.326748714407664	NaN

▼ SCORING HISTORY - DEVIANCE



variable	relative_importance	scaled_importance	percentage
Characteristic	15428.5498	1.0	0.2027
Ataxia	12003.3438	0.7780	0.1577
Classification	10439.2646	0.6766	0.1372
Etiology_clas	9292.1875	0.6023	0.1221
Disease_duri	6920.1553	0.4485	0.0909
Etiology_ner	5072.7236	0.3288	0.0666
Classification	4749.8564	0.3079	0.0624
Etiology_inhi	3846.1099	0.2493	0.0505
Age_at_first	3455.4946	0.2240	0.0454
Age_at_wor	2455.3130	0.1591	0.0323
Bradykinesia	899.2981	0.0583	0.0118
Hypo_LeftGP	881.0652	0.0571	0.0116
Age_at_sym	372.2310	0.0241	0.0049
Family_histo	297.6534	0.0193	0.0039
Gender	0	0	0
Classification	0	0	0
Symptom_di	0	0	0
Tone_abnorr	0	0	0
Tone_abnorr	0	0	0
Abnormal_m	0	0	0
Abnormal_pi	0	0	0
Hypo_LeftG	0	0	0
Hypo_Right	0	0	0
Hypotrophy_	0	0	0
Hypotrophy_	0	0	0
Hypo_RightG	0	0	0
Hyper_LeftG	0	0	0
Hyper_Righti	0	0	0
Hypotrophy_	0	0	0
Hypotrophy_	0	0	0
Rest	0	0	0
Action	0	0	0
Posture	0	0	0
Lower_lim	0	0	0
Oro_facial	0	0	0
Cervical	0	0	0
Myoclonus	0	0	0
Athetosis	0	0	0
Chorea	0	0	0
Tremor	0	0	0



Distribution des individus dans le plan factoriel

