Runnning AutoML for Predicting P

```
/anaconda/lib/python3.6/site-packages/h2o/utils/shared_utils.py:177:
FutureWarning: Method .as_matrix will be removed in a future version. Use
.values instead.
  data = _handle_python_lists(python_obj.as_matrix().tolist(), -1)[1]
```

Parse progress:
|██| 100%
Parse progress:
|██| 100%
['level_0', 'user_id', 'age', 'user_followed_by', 'user_follows',
'user_posted_photos', 'Person', 'Plant', 'Food', 'Collage', 'Animal',
'Outdoors', 'Pet', 'Book', 'Dog', 'Canine', 'Sky', 'Alcohol', 'Crowd',
'Toy', 'Cat', 'Coast', 'Tree', 'Beach', 'Sport', 'Teddy Bear', 'Sunlight',
'Light', 'Drawing', 'Sea Life', 'TV', 'Dusk', 'Bikini', 'Sunrise',
'Sunset', 'Swimwear', 'Selfie', 'Beard', 'Woman', 'Cocktail', 'Pool',
'Performer', 'Coffee Cup', 'Tattoo', 'Downtown', 'Musical Instrument',
'Festival', 'City', 'Laptop', 'Pizza', 'Cloud', 'Beer Bottle', 'Money',
'Club', 'Airplane', 'Sketch', 'Sandwich', 'Cafeteria', 'Breakfast',
'Child', 'avg_number_of_faces_over_images_with_faces',
'avg_number_of_faces_over_all_images', 'avg_likes', 'avg_comments',
'happy_flt_pct', 'depressed_flt_pct', 'happy_to_depressed_flt_ratio',
'avg_posts_early_day', 'avg_posts_late_day', 'avg_posts_early_night',
'avg_posts_late_night', 'avg_posts_day', 'avg_posts_night',
'avg_posts_whole_date', 'percentage_animals', 'ANGRY', 'CALM', 'CONFUSED',
'DISGUSTED', 'HAPPY', 'SAD', 'SURPRISED', 'ratio_male', 'ratio_female',
'index', 'id', 'gender', 'born', 'education', 'employed', 'income', 'A_2',
'N_1', 'P_1', 'E_1', 'A_1', 'H_1', 'M_1', 'R_1', 'M_2', 'E_2', 'LON',
'H_2', 'P_2', 'N_2', 'A_3', 'N_3', 'E_3', 'H_3', 'R_2', 'M_3', 'R_3',
'P_3', 'HAP', 'participate', 'insta_user_id', 'completed', 'start_q',
'end_q', 'network_id', 'P', 'N_EMO', 'P_EMO', 'imagecount',
'private_account']
AutoML progress:
|██| 100%

model_id	mean_residual_deviance	rmse	mse	mae	rmsle
GBM_grid_0_AutoML_20181021_131439_model_0	0.0623669	0.249734	0.0623669	0.169169	0.0445388
StackedEnsemble_BestOfFamily_0_AutoML_20181021_131439	0.0726278	0.269495	0.0726278	0.185483	0.0498858

StackedEnsemble_AllModels_0_AutoML_20181021_131439	0.0831821	0.288413	0.0831821	0.201074	0.0509634
GBM_grid_0_AutoML_20181021_131439_model_1	0.166658	0.408237	0.166658	0.287941	0.0674659
GBM_grid_0_AutoML_20181021_131439_model_3	0.166658	0.408237	0.166658	0.287941	0.0674659
GBM_grid_0_AutoML_20181021_131439_model_2	0.166658	0.408237	0.166658	0.287941	0.0674659
GBM_grid_0_AutoML_20181021_131439_model_5	0.272992	0.522486	0.272992	0.374044	0.0810663
DRF_0_AutoML_20181021_131439	0.285541	0.53436	0.285541	0.385002	0.0828118
XRT_0_AutoML_20181021_131439	0.310327	0.55707	0.310327	0.402681	0.088887
GLM_grid_0_AutoML_20181021_131439_model_0	0.895526	0.946322	0.895526	0.635474	nan

	variable	relative_importance	\
0	P_EMO	768.445129	
1	HAP	86.014267	
2	P_2	57.005489	
3	P_3	52.862606	
4	P_1	34.736305	
5	R_3	11.450481	
6	employed	7.767081	
7	income	7.087769	
8	gender	4.923351	
9	M_3	3.519305	
10	E_2	3.283410	
11	SAD	2.588686	
12	M_1	2.553033	
13	M_2	2.138906	
14	N_EMO	1.632203	
15	user_followed_by	1.607216	
16	A_1	1.323329	
17	level_0	1.114045	
18	born	0.916576	
19	avg_number_of_faces_over_images_with_faces	0.746629	
20	N_3	0.716717	
21	age	0.701624	
22	avg_comments	0.695721	

23	N_1	0.647543
24	Swimwear	0.642422
25	Plant	0.623257
26	City	0.614287
27	avg_posts_night	0.579868
28	avg_posts_early_day	0.491307
29	education	0.471592
..	...	...
90	HAPPY	0.013528
91	avg_posts_whole_date	0.013107
92	TV	0.010695
93	participate	0.009996
94	Cat	0.008777
95	Cocktail	0.007693
96	Bikini	0.005941
97	Sandwich	0.004770
98	Tree	0.004396
99	user_posted_photos	0.004059
100	Sea Life	0.003941
101	Performer	0.003409
102	Sunset	0.003211
103	Canine	0.003056
104	Money	0.002994
105	DISGUSTED	0.002965
106	Food	0.002716
107	Sunlight	0.002310
108	CALM	0.001910
109	Crowd	0.001829
110	Club	0.001732
111	Selfie	0.001343
112	Beer Bottle	0.000996
113	Pizza	0.000925
114	Light	0.000446
115	Musical Instrument	0.000218
116	Child	0.000122
117	Breakfast	0.000023
118	Cafeteria	0.000002
119	Airplane	0.000000

	scaled_importance	percentage
0	1.000000e+00	7.210133e-01
1	1.119329e-01	8.070509e-02
2	7.418290e-02	5.348686e-02

3	6.879165e-02	4.959969e-02
4	4.520336e-02	3.259223e-02
5	1.490084e-02	1.074371e-02
6	1.010753e-02	7.287663e-03
7	9.223520e-03	6.650281e-03
8	6.406900e-03	4.619460e-03
9	4.579773e-03	3.302078e-03
10	4.272797e-03	3.080744e-03
11	3.368733e-03	2.428901e-03
12	3.322336e-03	2.395449e-03
13	2.783421e-03	2.006883e-03
14	2.124033e-03	1.531456e-03
15	2.091517e-03	1.508011e-03
16	1.722086e-03	1.241647e-03
17	1.449739e-03	1.045281e-03
18	1.192767e-03	8.600005e-04
19	9.716103e-04	7.005439e-04
20	9.326841e-04	6.724776e-04
21	9.130437e-04	6.583167e-04
22	9.053621e-04	6.527781e-04
23	8.426665e-04	6.075738e-04
24	8.360030e-04	6.027693e-04
25	8.110624e-04	5.847868e-04
26	7.993900e-04	5.763709e-04
27	7.545990e-04	5.440760e-04
28	6.393522e-04	4.609815e-04
29	6.136964e-04	4.424833e-04
..	...	...
90	1.760472e-05	1.269324e-05
91	1.705661e-05	1.229804e-05
92	1.391803e-05	1.003509e-05
93	1.300808e-05	9.378998e-06
94	1.142211e-05	8.235495e-06
95	1.001150e-05	7.218424e-06
96	7.731261e-06	5.574342e-06
97	6.207269e-06	4.475524e-06
98	5.720992e-06	4.124911e-06
99	5.282137e-06	3.808491e-06
100	5.129037e-06	3.698104e-06
101	4.436512e-06	3.198784e-06
102	4.178290e-06	3.012602e-06
103	3.977140e-06	2.867571e-06
104	3.895734e-06	2.808876e-06

```
105        3.857874e-06   2.781578e-06
106        3.534579e-06   2.548479e-06
107        3.005886e-06   2.167284e-06
108        2.485132e-06   1.791814e-06
109        2.380686e-06   1.716506e-06
110        2.254313e-06   1.625390e-06
111        1.747257e-06   1.259796e-06
112        1.295687e-06   9.342073e-07
113        1.203219e-06   8.675371e-07
114        5.800972e-07   4.182578e-07
115        2.842697e-07   2.049623e-07
116        1.583512e-07   1.141733e-07
117        3.023078e-08   2.179680e-08
118        2.198965e-09   1.585483e-09
119        0.000000e+00   0.000000e+00

[120 rows x 4 columns]
### Runnning AutoML for Predicting E ###
Parse progress:
|████████████████████████████████████████████████████████| 100%
Parse progress:
|████████████████████████████████████████████████████████| 100%

['level_0', 'user_id', 'age', 'user_followed_by', 'user_follows',
'user_posted_photos', 'Person', 'Plant', 'Food', 'Collage', 'Animal',
'Outdoors', 'Pet', 'Book', 'Dog', 'Canine', 'Sky', 'Alcohol', 'Crowd',
'Toy', 'Cat', 'Coast', 'Tree', 'Beach', 'Sport', 'Teddy Bear', 'Sunlight',
'Light', 'Drawing', 'Sea Life', 'TV', 'Dusk', 'Bikini', 'Sunrise',
'Sunset', 'Swimwear', 'Selfie', 'Beard', 'Woman', 'Cocktail', 'Pool',
'Performer', 'Coffee Cup', 'Tattoo', 'Downtown', 'Musical Instrument',
'Festival', 'City', 'Laptop', 'Pizza', 'Cloud', 'Beer Bottle', 'Money',
'Club', 'Airplane', 'Sketch', 'Sandwich', 'Cafeteria', 'Breakfast',
'Child', 'avg_number_of_faces_over_images_with_faces',
'avg_number_of_faces_over_all_images', 'avg_likes', 'avg_comments',
'happy_flt_pct', 'depressed_flt_pct', 'happy_to_depressed_flt_ratio',
'avg_posts_early_day', 'avg_posts_late_day', 'avg_posts_early_night',
'avg_posts_late_night', 'avg_posts_day', 'avg_posts_night',
'avg_posts_whole_date', 'percentage_animals', 'ANGRY', 'CALM', 'CONFUSED',
'DISGUSTED', 'HAPPY', 'SAD', 'SURPRISED', 'ratio_male', 'ratio_female',
'index', 'id', 'gender', 'born', 'education', 'employed', 'income', 'A_2',
'N_1', 'P_1', 'E_1', 'A_1', 'H_1', 'M_1', 'R_1', 'M_2', 'E_2', 'LON',
'H_2', 'P_2', 'N_2', 'A_3', 'N_3', 'E_3', 'H_3', 'R_2', 'M_3', 'R_3',
'P_3', 'HAP', 'participate', 'insta_user_id', 'completed', 'start_q',
```

```
'end_q', 'network_id', 'E', 'N_EMO', 'P_EMO', 'imagecount',
'private_account']
AutoML progress:
|████████████████████████████████████████████████████████| 100%
```

model_id	mean_residual_deviance	rmse	mse	mae	rmsle
StackedEnsemble_BestOfFamily_0_AutoML_20181021_131513	0.239975	0.489873	0.239975	0.354191	0.0716432
StackedEnsemble_AllModels_0_AutoML_20181021_131513	0.244023	0.493987	0.244023	0.352334	0.0728715
GBM_grid_0_AutoML_20181021_131513_model_2	0.284215	0.533118	0.284215	0.365068	0.0800263
GBM_grid_0_AutoML_20181021_131513_model_1	0.284215	0.533118	0.284215	0.365068	0.0800263
GBM_grid_0_AutoML_20181021_131513_model_3	0.284215	0.533118	0.284215	0.365068	0.0800263
GBM_grid_0_AutoML_20181021_131513_model_0	0.479566	0.692507	0.479566	0.5047	0.10089
GLM_grid_0_AutoML_20181021_131513_model_0	0.515947	0.718295	0.515947	0.519315	0.0910309
DRF_0_AutoML_20181021_131513	0.619935	0.787359	0.619935	0.610242	0.111358
XRT_0_AutoML_20181021_131513	0.641172	0.800732	0.641172	0.611532	0.11378
GBM_grid_0_AutoML_20181021_131513_model_5	0.747658	0.864672	0.747658	0.678328	0.121427

```
Stack is composed by:
{'Intercept': 7.131687242798356,
'GBM_grid_0_AutoML_20181021_131513_model_2': 0.9538364977905004,
'GLM_grid_0_AutoML_20181021_131513_model_0': 0.4116370758922083,
'DRF_0_AutoML_20181021_131513': 0.0, 'XRT_0_AutoML_20181021_131513': 0.0}
GBM_grid_0_AutoML_20181021_131513_model_2
```

	variable	relative_importance	\
0	E_3	286.626892	
1	E_1	180.249496	
2	E_2	96.075722	
3	M_2	36.338078	

4	A_1	29.998442
5	ratio_female	20.179438
6	M_3	14.116594
7	Collage	12.610878
8	avg_number_of_faces_over_images_with_faces	12.588078
9	level_0	12.312813
10	income	9.889126
11	avg_number_of_faces_over_all_images	8.681088
12	M_1	6.145589
13	R_2	5.930345
14	R_3	4.731505
15	HAP	3.885303
16	avg_posts_late_day	2.574208
17	H_3	2.057358
18	avg_posts_early_night	1.684847
19	Person	1.619330
20	P_2	1.592525
21	ratio_male	1.264146
22	P_EMO	1.104126
23	avg_posts_day	0.927938
24	Pet	0.856935
25	SURPRISED	0.853010
26	avg_posts_late_night	0.773965
27	avg_posts_whole_date	0.748970
28	born	0.743290
29	P_3	0.739213
..	...	...
90	Tattoo	0.000000
91	Downtown	0.000000
92	Musical Instrument	0.000000
93	Festival	0.000000
94	Laptop	0.000000
95	Pizza	0.000000
96	Cloud	0.000000
97	Beer Bottle	0.000000
98	Money	0.000000
99	Club	0.000000
100	Airplane	0.000000
101	Sketch	0.000000
102	Sandwich	0.000000
103	Cafeteria	0.000000
104	Breakfast	0.000000
105	Child	0.000000

106	happy_flt_pct	0.000000
107	avg_posts_early_day	0.000000
108	ANGRY	0.000000
109	CALM	0.000000
110	CONFUSED	0.000000
111	DISGUSTED	0.000000
112	HAPPY	0.000000
113	SAD	0.000000
114	gender	0.000000
115	P_1	0.000000
116	R_1	0.000000
117	N_2	0.000000
118	participate	0.000000
119	start_q	0.000000

	scaled_importance	percentage
0	1.000000	0.374179
1	0.628865	0.235308
2	0.335194	0.125423
3	0.126778	0.047438
4	0.104660	0.039162
5	0.070403	0.026343
6	0.049251	0.018429
7	0.043998	0.016463
8	0.043918	0.016433
9	0.042958	0.016074
10	0.034502	0.012910
11	0.030287	0.011333
12	0.021441	0.008023
13	0.020690	0.007742
14	0.016508	0.006177
15	0.013555	0.005072
16	0.008981	0.003361
17	0.007178	0.002686
18	0.005878	0.002199
19	0.005650	0.002114
20	0.005556	0.002079
21	0.004410	0.001650
22	0.003852	0.001441
23	0.003237	0.001211
24	0.002990	0.001119
25	0.002976	0.001114
26	0.002700	0.001010

```
27          0.002613    0.000978
28          0.002593    0.000970
29          0.002579    0.000965
..              ...         ...
90          0.000000    0.000000
91          0.000000    0.000000
92          0.000000    0.000000
93          0.000000    0.000000
94          0.000000    0.000000
95          0.000000    0.000000
96          0.000000    0.000000
97          0.000000    0.000000
98          0.000000    0.000000
99          0.000000    0.000000
100         0.000000    0.000000
101         0.000000    0.000000
102         0.000000    0.000000
103         0.000000    0.000000
104         0.000000    0.000000
105         0.000000    0.000000
106         0.000000    0.000000
107         0.000000    0.000000
108         0.000000    0.000000
109         0.000000    0.000000
110         0.000000    0.000000
111         0.000000    0.000000
112         0.000000    0.000000
113         0.000000    0.000000
114         0.000000    0.000000
115         0.000000    0.000000
116         0.000000    0.000000
117         0.000000    0.000000
118         0.000000    0.000000
119         0.000000    0.000000

[120 rows x 4 columns]
GLM_grid_0_AutoML_20181021_131513_model_0
                           names    coefficients  \
0                      Intercept    3.695890e+01
131                          E_3    2.689897e-01
118                          E_1    2.754039e-01
124                          E_2    2.049398e-01
137                          HAP    5.563754e-02
```

113	index	9.698045e-04
123	M_2	3.887746e-02
117	P_1	4.544054e-02
121	M_1	4.362970e-02
32	user_followed_by	-1.686024e-04
17	employed.Out of work and looking for work	7.441049e-02
116	N_1	2.845117e-02
129	A_3	3.565499e-02
8	income.$60,000 to $69,999	6.735040e-02
111	ratio_male	-4.711763e-01
29	level_0	1.436107e-03
83	Airplane	2.902277e+01
75	Festival	1.340109e+01
40	Outdoors	-2.248816e+00
4	income.$20,000 to $29,999	5.661300e-02
67	Woman	-2.605959e+00
119	A_1	2.929362e-02
56	Light	1.364369e+01
77	Laptop	1.791178e+01
133	R_2	-2.436545e-02
120	H_1	-2.672096e-02
14	employed.A homemaker	-5.187898e-02
9	income.$70,000 to $79,999	-5.063416e-02
125	LON	-1.755385e-02
128	N_2	-2.013303e-02
..	...	...
21	education.College graduate	-8.522292e-03
81	Money	-5.247248e+00
106	CONFUSED	1.058944e+00
31	age	-8.854667e-04
24	education.Some high school	-7.519258e-03
104	ANGRY	2.123659e+00
79	Cloud	8.431587e-01
59	TV	-7.361327e-01
54	Teddy Bear	-1.878518e+00
130	N_3	2.278127e-03
85	Sandwich	-1.018172e+00
46	Alcohol	-3.443112e-01
70	Performer	-4.379196e-01
43	Dog	2.844580e-01
36	Plant	-1.108115e-01
134	M_3	-1.651411e-03
102	avg_posts_whole_date	3.998894e-03

20	employed.Unable to work	-3.533002e-03
74	Musical Instrument	2.559526e-01
25	gender.Female	2.551215e-03
53	Sport	-1.860193e-01
16	employed.Employed for wages	2.011482e-03
30	user_id	1.654131e-12
5	income.$30,000 to $39,999	1.803570e-03
26	gender.Male	-1.674095e-03
72	Tattoo	-7.485760e-01
138	insta_user_id	-1.099199e-12
114	born	7.891573e-05
103	percentage_animals	6.739186e-03
44	Canine	-2.352662e-02

	standardized_coefficients	abs_standardized_coef
0	7.123721	7.123721
131	0.536254	0.536254
118	0.479217	0.479217
124	0.389213	0.389213
137	0.110577	0.110577
113	0.093118	0.093118
123	0.088142	0.088142
117	0.087421	0.087421
121	0.080080	0.080080
32	-0.079297	0.079297
17	0.074410	0.074410
116	0.072552	0.072552
129	0.069541	0.069541
8	0.067350	0.067350
111	-0.065724	0.065724
29	0.065197	0.065197
83	0.064909	0.064909
75	0.061554	0.061554
40	-0.057776	0.057776
4	0.056613	0.056613
67	-0.056063	0.056063
119	0.053678	0.053678
56	0.053475	0.053475
77	0.053032	0.053032
133	-0.052354	0.052354
120	-0.052260	0.052260
14	-0.051879	0.051879
9	-0.050634	0.050634

```
125                      -0.048690                    0.048690
128                      -0.047998                    0.047998
..                             ...                         ...
21                       -0.008522                    0.008522
81                       -0.008264                    0.008264
106                       0.007651                    0.007651
31                       -0.007648                    0.007648
24                       -0.007519                    0.007519
104                       0.007377                    0.007377
79                        0.007086                    0.007086
59                       -0.006519                    0.006519
54                       -0.006138                    0.006138
130                       0.005700                    0.005700
85                       -0.005507                    0.005507
46                       -0.005448                    0.005448
70                       -0.005348                    0.005348
43                        0.005322                    0.005322
36                       -0.004840                    0.004840
134                      -0.004037                    0.004037
102                       0.003641                    0.003641
20                       -0.003533                    0.003533
74                        0.003420                    0.003420
25                        0.002551                    0.002551
53                       -0.002100                    0.002100
16                        0.002011                    0.002011
30                        0.001807                    0.001807
5                         0.001804                    0.001804
26                       -0.001674                    0.001674
72                       -0.001335                    0.001335
138                      -0.001201                    0.001201
114                       0.000689                    0.000689
103                       0.000651                    0.000651
44                       -0.000440                    0.000440


[144 rows x 4 columns]
### Runnning AutoML for Predicting R ###
Parse progress:
|██████████████████████████████████████████████████████| 100%
Parse progress:
|██████████████████████████████████████████████████████| 100%
['level_0', 'user_id', 'age', 'user_followed_by', 'user_follows',
'user_posted_photos', 'Person', 'Plant', 'Food', 'Collage', 'Animal',
```

```
'Outdoors', 'Pet', 'Book', 'Dog', 'Canine', 'Sky', 'Alcohol', 'Crowd',
'Toy', 'Cat', 'Coast', 'Tree', 'Beach', 'Sport', 'Teddy Bear', 'Sunlight',
'Light', 'Drawing', 'Sea Life', 'TV', 'Dusk', 'Bikini', 'Sunrise',
'Sunset', 'Swimwear', 'Selfie', 'Beard', 'Woman', 'Cocktail', 'Pool',
'Performer', 'Coffee Cup', 'Tattoo', 'Downtown', 'Musical Instrument',
'Festival', 'City', 'Laptop', 'Pizza', 'Cloud', 'Beer Bottle', 'Money',
'Club', 'Airplane', 'Sketch', 'Sandwich', 'Cafeteria', 'Breakfast',
'Child', 'avg_number_of_faces_over_images_with_faces',
'avg_number_of_faces_over_all_images', 'avg_likes', 'avg_comments',
'happy_flt_pct', 'depressed_flt_pct', 'happy_to_depressed_flt_ratio',
'avg_posts_early_day', 'avg_posts_late_day', 'avg_posts_early_night',
'avg_posts_late_night', 'avg_posts_day', 'avg_posts_night',
'avg_posts_whole_date', 'percentage_animals', 'ANGRY', 'CALM', 'CONFUSED',
'DISGUSTED', 'HAPPY', 'SAD', 'SURPRISED', 'ratio_male', 'ratio_female',
'index', 'id', 'gender', 'born', 'education', 'employed', 'income', 'A_2',
'N_1', 'P_1', 'E_1', 'A_1', 'H_1', 'M_1', 'R_1', 'M_2', 'E_2', 'LON',
'H_2', 'P_2', 'N_2', 'A_3', 'N_3', 'E_3', 'H_3', 'R_2', 'M_3', 'R_3',
'P_3', 'HAP', 'participate', 'insta_user_id', 'completed', 'start_q',
'end_q', 'network_id', 'R', 'N_EMO', 'P_EMO', 'imagecount',
'private_account']
AutoML progress:
|████████████████████████████████████████████████████| 100%
```

model_id	mean_residual_deviance	rmse	mse	mae	rmsle
StackedEnsemble_AllModels_0_AutoML_20181021_131543	0.263259	0.513087	0.263259	0.38687	0.0973381
StackedEnsemble_BestOfFamily_0_AutoML_20181021_131543	0.290622	0.539093	0.290622	0.414501	0.0984083
GBM_grid_0_AutoML_20181021_131543_model_1	0.38257	0.618523	0.38257	0.439413	0.120308
GBM_grid_0_AutoML_20181021_131543_model_3	0.38257	0.618523	0.38257	0.439413	0.120308
GBM_grid_0_AutoML_20181021_131543_model_2	0.38257	0.618523	0.38257	0.439413	0.120308
GBM_grid_0_AutoML_20181021_131543_model_0	0.430904	0.656433	0.430904	0.464252	0.118756
GLM_grid_0_AutoML_20181021_131543_model_0	0.540461	0.73516	0.540461	0.568651	0.100458

DRF_0_AutoML_20181021_131543	0.798961	0.893846	0.798961	0.707429	0.145865
XRT_0_AutoML_20181021_131543	0.848561	0.921174	0.848561	0.692107	0.15522
GBM_grid_0_AutoML_20181021_131543_model_5	0.873534	0.93463	0.873534	0.707457	0.160974

Stack is composed by:
{'Intercept': 6.8559670781893,
'GBM_grid_0_AutoML_20181021_131543_model_1': 0.27918932902892857,
'GBM_grid_0_AutoML_20181021_131543_model_3': 0.28227421976442685,
'GBM_grid_0_AutoML_20181021_131543_model_2': 0.2845949946504351,
'GBM_grid_0_AutoML_20181021_131543_model_0': 0.5294025062782414,
'GLM_grid_0_AutoML_20181021_131543_model_0': 0.41580718794871563,
'DRF_0_AutoML_20181021_131543': 0.0, 'XRT_0_AutoML_20181021_131543': 0.0,
'GBM_grid_0_AutoML_20181021_131543_model_5': 0.0,
'GBM_grid_0_AutoML_20181021_131543_model_6': 0.0,
'GBM_grid_0_AutoML_20181021_131543_model_4': 0.034849055720585914}
GBM_grid_0_AutoML_20181021_131543_model_1

	variable	relative_importance \
0	R_2	416.002106
1	R_3	259.444061
2	HAP	251.695099
3	R_1	250.300980
4	P_2	106.706909
5	P_3	32.097588
6	income	21.566280
7	M_2	7.621400
8	LON	6.723717
9	Plant	3.008718
10	avg_likes	2.859941
11	avg_posts_late_day	2.275677
12	Sport	2.004669
13	A_2	1.969914
14	A_1	1.939373
15	happy_to_depressed_flt_ratio	1.813111
16	N_2	1.783772
17	Performer	1.537147
18	user_posted_photos	1.299301
19	HAPPY	1.203547
20	Food	1.118153
21	Festival	0.866316
22	ratio_female	0.708370

23	user_follows	0.694987
24	happy_flt_pct	0.687872
25	N_EMO	0.643345
26	avg_comments	0.641272
27	avg_posts_early_night	0.585215
28	level_0	0.584716
29	Beach	0.513543
..	...	...
90	Downtown	0.000000
91	Musical Instrument	0.000000
92	City	0.000000
93	Pizza	0.000000
94	Cloud	0.000000
95	Beer Bottle	0.000000
96	Money	0.000000
97	Club	0.000000
98	Airplane	0.000000
99	Sketch	0.000000
100	Cafeteria	0.000000
101	Breakfast	0.000000
102	Child	0.000000
103	avg_number_of_faces_over_images_with_faces	0.000000
104	avg_posts_whole_date	0.000000
105	percentage_animals	0.000000
106	ANGRY	0.000000
107	CONFUSED	0.000000
108	DISGUSTED	0.000000
109	gender	0.000000
110	E_1	0.000000
111	M_1	0.000000
112	E_2	0.000000
113	A_3	0.000000
114	N_3	0.000000
115	H_3	0.000000
116	participate	0.000000
117	start_q	0.000000
118	end_q	0.000000
119	P_EMO	0.000000

	scaled_importance	percentage
0	1.000000	0.299451
1	0.623660	0.186756
2	0.605033	0.181178

3	0.601682	0.180174
4	0.256506	0.076811
5	0.077157	0.023105
6	0.051842	0.015524
7	0.018321	0.005486
8	0.016163	0.004840
9	0.007232	0.002166
10	0.006875	0.002059
11	0.005470	0.001638
12	0.004819	0.001443
13	0.004735	0.001418
14	0.004662	0.001396
15	0.004358	0.001305
16	0.004288	0.001284
17	0.003695	0.001106
18	0.003123	0.000935
19	0.002893	0.000866
20	0.002688	0.000805
21	0.002082	0.000624
22	0.001703	0.000510
23	0.001671	0.000500
24	0.001654	0.000495
25	0.001546	0.000463
26	0.001542	0.000462
27	0.001407	0.000421
28	0.001406	0.000421
29	0.001234	0.000370
..	...	...
90	0.000000	0.000000
91	0.000000	0.000000
92	0.000000	0.000000
93	0.000000	0.000000
94	0.000000	0.000000
95	0.000000	0.000000
96	0.000000	0.000000
97	0.000000	0.000000
98	0.000000	0.000000
99	0.000000	0.000000
100	0.000000	0.000000
101	0.000000	0.000000
102	0.000000	0.000000
103	0.000000	0.000000
104	0.000000	0.000000

```
105              0.000000     0.000000
106              0.000000     0.000000
107              0.000000     0.000000
108              0.000000     0.000000
109              0.000000     0.000000
110              0.000000     0.000000
111              0.000000     0.000000
112              0.000000     0.000000
113              0.000000     0.000000
114              0.000000     0.000000
115              0.000000     0.000000
116              0.000000     0.000000
117              0.000000     0.000000
118              0.000000     0.000000
119              0.000000     0.000000

[120 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131543_model_3
                             variable   relative_importance  \
0                                 R_2            416.002106
1                                 R_3            259.444061
2                                 HAP            251.695099
3                                 R_1            250.300980
4                                 P_2            106.706909
5                                 P_3             32.097588
6                              income             21.566280
7                                 M_2              7.621400
8                                 LON              6.723717
9                               Plant              3.008718
10                          avg_likes              2.859941
11                 avg_posts_late_day              2.275677
12                              Sport              2.004669
13                                A_2              1.969914
14                                A_1              1.939373
15          happy_to_depressed_flt_ratio          1.813111
16                                N_2              1.783772
17                          Performer              1.537147
18                user_posted_photos              1.299301
19                              HAPPY              1.203547
20                               Food              1.118153
21                            Festival              0.866316
22                        ratio_female              0.708370
23                        user_follows              0.694987
```

24	happy_flt_pct	0.687872
25	N_EMO	0.643345
26	avg_comments	0.641272
27	avg_posts_early_night	0.585215
28	level_0	0.584716
29	Beach	0.513543
..	...	...
90	Downtown	0.000000
91	Musical Instrument	0.000000
92	City	0.000000
93	Pizza	0.000000
94	Cloud	0.000000
95	Beer Bottle	0.000000
96	Money	0.000000
97	Club	0.000000
98	Airplane	0.000000
99	Sketch	0.000000
100	Cafeteria	0.000000
101	Breakfast	0.000000
102	Child	0.000000
103	avg_number_of_faces_over_images_with_faces	0.000000
104	avg_posts_whole_date	0.000000
105	percentage_animals	0.000000
106	ANGRY	0.000000
107	CONFUSED	0.000000
108	DISGUSTED	0.000000
109	gender	0.000000
110	E_1	0.000000
111	M_1	0.000000
112	E_2	0.000000
113	A_3	0.000000
114	N_3	0.000000
115	H_3	0.000000
116	participate	0.000000
117	start_q	0.000000
118	end_q	0.000000
119	P_EMO	0.000000

	scaled_importance	percentage
0	1.000000	0.299451
1	0.623660	0.186756
2	0.605033	0.181178
3	0.601682	0.180174

4	0.256506	0.076811
5	0.077157	0.023105
6	0.051842	0.015524
7	0.018321	0.005486
8	0.016163	0.004840
9	0.007232	0.002166
10	0.006875	0.002059
11	0.005470	0.001638
12	0.004819	0.001443
13	0.004735	0.001418
14	0.004662	0.001396
15	0.004358	0.001305
16	0.004288	0.001284
17	0.003695	0.001106
18	0.003123	0.000935
19	0.002893	0.000866
20	0.002688	0.000805
21	0.002082	0.000624
22	0.001703	0.000510
23	0.001671	0.000500
24	0.001654	0.000495
25	0.001546	0.000463
26	0.001542	0.000462
27	0.001407	0.000421
28	0.001406	0.000421
29	0.001234	0.000370
..	...	...
90	0.000000	0.000000
91	0.000000	0.000000
92	0.000000	0.000000
93	0.000000	0.000000
94	0.000000	0.000000
95	0.000000	0.000000
96	0.000000	0.000000
97	0.000000	0.000000
98	0.000000	0.000000
99	0.000000	0.000000
100	0.000000	0.000000
101	0.000000	0.000000
102	0.000000	0.000000
103	0.000000	0.000000
104	0.000000	0.000000
105	0.000000	0.000000

```
106          0.000000     0.000000
107          0.000000     0.000000
108          0.000000     0.000000
109          0.000000     0.000000
110          0.000000     0.000000
111          0.000000     0.000000
112          0.000000     0.000000
113          0.000000     0.000000
114          0.000000     0.000000
115          0.000000     0.000000
116          0.000000     0.000000
117          0.000000     0.000000
118          0.000000     0.000000
119          0.000000     0.000000


[120 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131543_model_2
                             variable   relative_importance  \
0                                 R_2            416.002106
1                                 R_3            259.444061
2                                 HAP            251.695099
3                                 R_1            250.300980
4                                 P_2            106.706909
5                                 P_3             32.097588
6                              income             21.566280
7                                 M_2              7.621400
8                                 LON              6.723717
9                               Plant              3.008718
10                          avg_likes              2.859941
11                avg_posts_late_day              2.275677
12                              Sport              2.004669
13                                A_2              1.969914
14                                A_1              1.939373
15          happy_to_depressed_flt_ratio          1.813111
16                                N_2              1.783772
17                          Performer              1.537147
18                user_posted_photos              1.299301
19                              HAPPY              1.203547
20                               Food              1.118153
21                            Festival              0.866316
22                        ratio_female              0.708370
23                        user_follows              0.694987
```

24	happy_flt_pct	0.687872
25	N_EMO	0.643345
26	avg_comments	0.641272
27	avg_posts_early_night	0.585215
28	level_0	0.584716
29	Beach	0.513543
..	...	...
90	Downtown	0.000000
91	Musical Instrument	0.000000
92	City	0.000000
93	Pizza	0.000000
94	Cloud	0.000000
95	Beer Bottle	0.000000
96	Money	0.000000
97	Club	0.000000
98	Airplane	0.000000
99	Sketch	0.000000
100	Cafeteria	0.000000
101	Breakfast	0.000000
102	Child	0.000000
103	avg_number_of_faces_over_images_with_faces	0.000000
104	avg_posts_whole_date	0.000000
105	percentage_animals	0.000000
106	ANGRY	0.000000
107	CONFUSED	0.000000
108	DISGUSTED	0.000000
109	gender	0.000000
110	E_1	0.000000
111	M_1	0.000000
112	E_2	0.000000
113	A_3	0.000000
114	N_3	0.000000
115	H_3	0.000000
116	participate	0.000000
117	start_q	0.000000
118	end_q	0.000000
119	P_EMO	0.000000

	scaled_importance	percentage
0	1.000000	0.299451
1	0.623660	0.186756
2	0.605033	0.181178
3	0.601682	0.180174

4	0.256506	0.076811
5	0.077157	0.023105
6	0.051842	0.015524
7	0.018321	0.005486
8	0.016163	0.004840
9	0.007232	0.002166
10	0.006875	0.002059
11	0.005470	0.001638
12	0.004819	0.001443
13	0.004735	0.001418
14	0.004662	0.001396
15	0.004358	0.001305
16	0.004288	0.001284
17	0.003695	0.001106
18	0.003123	0.000935
19	0.002893	0.000866
20	0.002688	0.000805
21	0.002082	0.000624
22	0.001703	0.000510
23	0.001671	0.000500
24	0.001654	0.000495
25	0.001546	0.000463
26	0.001542	0.000462
27	0.001407	0.000421
28	0.001406	0.000421
29	0.001234	0.000370
..	...	...
90	0.000000	0.000000
91	0.000000	0.000000
92	0.000000	0.000000
93	0.000000	0.000000
94	0.000000	0.000000
95	0.000000	0.000000
96	0.000000	0.000000
97	0.000000	0.000000
98	0.000000	0.000000
99	0.000000	0.000000
100	0.000000	0.000000
101	0.000000	0.000000
102	0.000000	0.000000
103	0.000000	0.000000
104	0.000000	0.000000
105	0.000000	0.000000

```
106          0.000000     0.000000
107          0.000000     0.000000
108          0.000000     0.000000
109          0.000000     0.000000
110          0.000000     0.000000
111          0.000000     0.000000
112          0.000000     0.000000
113          0.000000     0.000000
114          0.000000     0.000000
115          0.000000     0.000000
116          0.000000     0.000000
117          0.000000     0.000000
118          0.000000     0.000000
119          0.000000     0.000000

[120 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131543_model_0
                   variable   relative_importance   scaled_importance  \
0                       R_2           525.463562        1.000000e+00
1                       R_3           212.827057        4.050272e-01
2                       HAP           197.754410        3.763428e-01
3                     P_EMO           106.550148        2.027736e-01
4                       R_1            95.131752        1.810435e-01
5                       LON            38.607044        7.347235e-02
6                       P_2            25.387407        4.831431e-02
7                       P_3            18.032499        3.431732e-02
8                    income            11.115990        2.115463e-02
9                  DISGUSTED             9.351894        1.779742e-02
10                  level_0             7.471879        1.421959e-02
11          user_followed_by             6.412435        1.220339e-02
12                    Coast             6.396093        1.217229e-02
13                      E_2             5.910850        1.124883e-02
14                      E_1             5.506740        1.047977e-02
15                      P_1             5.318700        1.012192e-02
16                 employed             5.086757        9.680513e-03
17      avg_posts_early_night           4.801205        9.137085e-03
18             happy_flt_pct             4.688608        8.922804e-03
19         avg_posts_late_day            4.277857        8.141110e-03
20                avg_likes             4.244846        8.078289e-03
21                  Drawing             4.169852        7.935569e-03
22                    N_EMO             2.913337        5.544317e-03
23               ratio_male             2.883052        5.486683e-03
24                      E_3             2.861060        5.444831e-03
```

25	Money	2.829468	5.384708e-03
26	Musical Instrument	2.805971	5.339992e-03
27	H_2	2.482784	4.724940e-03
28	avg_posts_day	2.328124	4.430610e-03
29	depressed_flt_pct	2.253341	4.288291e-03
..	...	...	...
90	Woman	0.115355	2.195300e-04
91	index	0.100465	1.911933e-04
92	Plant	0.093855	1.786133e-04
93	Swimwear	0.076221	1.450553e-04
94	Downtown	0.074080	1.409805e-04
95	user_id	0.071663	1.363797e-04
96	CONFUSED	0.071282	1.356561e-04
97	Club	0.066153	1.258951e-04
98	end_q	0.065218	1.241159e-04
99	Cafeteria	0.062695	1.193133e-04
100	Alcohol	0.058348	1.110414e-04
101	Sunlight	0.056820	1.081334e-04
102	Sketch	0.054734	1.041639e-04
103	Sandwich	0.053928	1.026289e-04
104	Person	0.049518	9.423751e-05
105	ANGRY	0.041974	7.988011e-05
106	Sunrise	0.035167	6.692633e-05
107	Pizza	0.032263	6.139979e-05
108	Performer	0.026552	5.053056e-05
109	Laptop	0.026397	5.023470e-05
110	Sunset	0.025644	4.880310e-05
111	Tree	0.023730	4.516095e-05
112	Beer Bottle	0.022611	4.303042e-05
113	participate	0.022348	4.253034e-05
114	Light	0.015080	2.869852e-05
115	Coffee Cup	0.010168	1.935081e-05
116	TV	0.000745	1.417084e-06
117	Selfie	0.000358	6.812399e-07
118	Cocktail	0.000100	1.910719e-07
119	Tattoo	0.000000	0.000000e+00

	percentage
0	3.807965e-01
1	1.542330e-01
2	1.433100e-01
3	7.721548e-02
4	6.894072e-02

```
5      2.797801e-02
6      1.839792e-02
7      1.306791e-02
8      8.055611e-03
9      6.777194e-03
10     5.414772e-03
11     4.647007e-03
12     4.635164e-03
13     4.283515e-03
14     3.990661e-03
15     3.854391e-03
16     3.686305e-03
17     3.479370e-03
18     3.397772e-03
19     3.100106e-03
20     3.076184e-03
21     3.021837e-03
22     2.111256e-03
23     2.089310e-03
24     2.073373e-03
25     2.050478e-03
26     2.033450e-03
27     1.799241e-03
28     1.687161e-03
29     1.632966e-03
..          ...
90     8.359627e-05
91     7.280572e-05
92     6.801533e-05
93     5.523655e-05
94     5.368489e-05
95     5.193293e-05
96     5.165735e-05
97     4.794042e-05
98     4.726291e-05
99     4.543410e-05
100    4.228419e-05
101    4.117684e-05
102    3.966523e-05
103    3.908071e-05
104    3.588531e-05
105    3.041807e-05
106    2.548531e-05
```

```
107  2.338082e-05
108  1.924186e-05
109  1.912920e-05
110  1.858405e-05
111  1.719713e-05
112  1.638583e-05
113  1.619541e-05
114  1.092830e-05
115  7.368722e-06
116  5.396207e-07
117  2.594138e-07
118  7.275951e-08
119  0.000000e+00


[120 rows x 4 columns]
GLM_grid_0_AutoML_20181021_131543_model_0
                         names  coefficients  standardized_coefficients
\
0                    Intercept -1.211540e+01                   6.848078
131                        R_2  2.544438e-01                   0.542913
120                        R_1  2.486417e-01                   0.542711
133                        R_3  1.850205e-01                   0.437838
135                        HAP  7.685144e-02                   0.147444
79                       Money -4.969049e+01                  -0.135757
130                        H_3  5.222816e-02                   0.119684
67                        Pool -8.242878e+00                  -0.106573
125                        P_2  5.215787e-02                   0.103370
124                        H_2 -3.810507e-02                  -0.092428
37                      Animal  2.159668e+00                   0.089816
113                        A_2 -4.992105e-02                  -0.086883
35                        Food  1.831830e+00                   0.084257
51                       Sport -1.166788e+01                  -0.083180
134                        P_3  3.793303e-02                   0.082385
56                    Sea Life  2.274845e+01                   0.081420
121                        M_2  3.870573e-02                   0.079323
140                      P_EMO  4.535599e-02                   0.078563
105                   DISGUSTED -9.320827e+01                  -0.078425
27                     level_0 -1.415119e-03                  -0.069912
70                       Tattoo  1.349068e+01                   0.069289
68                    Performer -2.182055e+01                  -0.068851
82                       Sketch -4.471195e+01                  -0.068485
49                         Tree -8.505408e+00                  -0.067102
```

123	LON	-2.268742e-02	-0.064729
86	Child	-1.780864e+01	-0.063144
5	income.$30,000 to $39,999	-6.281494e-02	-0.062815
92	depressed_flt_pct	4.453431e-01	0.059099
76	Pizza	-9.449423e+00	-0.058311
11	income.$90,000 to $99,999	-5.786206e-02	-0.057862
..	...	...	...
137	start_q	3.464626e-12	0.010228
22	education.Some high school	-9.792786e-03	-0.009793
58	Dusk	-9.694581e-01	-0.009278
29	age	-1.179890e-03	-0.008488
112	born	1.147998e-03	0.008364
100	avg_posts_whole_date	9.628002e-03	0.008028
71	Downtown	2.723729e+00	0.007973
15	employed.Employed for wages	7.497674e-03	0.007498
85	Breakfast	2.471775e+00	0.007336
83	Sandwich	9.019471e-01	0.007300
98	avg_posts_day	1.496162e-02	0.006824
7	income.$50,000 to $59,999	6.651661e-03	0.006652
81	Airplane	2.341267e+00	0.006614
10	income.$80,000 to $89,999	5.450235e-03	0.005450
28	user_id	-4.170640e-12	-0.005022
136	insta_user_id	-3.752936e-12	-0.004519
99	avg_posts_night	6.890103e-03	0.004478
8	income.$60,000 to $69,999	-4.474143e-03	-0.004474
1	income.$10,000 to $19,999	4.450740e-03	0.004451
127	A_3	-2.168982e-03	-0.004420
114	N_1	1.306782e-03	0.003079
89	avg_likes	6.126155e-05	0.002699
26	participate.Yes	-2.437350e-03	-0.002437
108	SURPRISED	-9.013013e-02	-0.002122
25	participate.No	2.059741e-03	0.002060
6	income.$40,000 to $49,999	1.520880e-03	0.001521
91	happy_flt_pct	4.841821e-03	0.001193
95	avg_posts_late_day	-2.177595e-03	-0.000964
38	Outdoors	-1.553386e-02	-0.000376
109	ratio_male	-6.567475e-04	-0.000092

	abs_standardized_coef
0	6.848078
131	0.542913
120	0.542711
133	0.437838

135	0.147444
79	0.135757
130	0.119684
67	0.106573
125	0.103370
124	0.092428
37	0.089816
113	0.086883
35	0.084257
51	0.083180
134	0.082385
56	0.081420
121	0.079323
140	0.078563
105	0.078425
27	0.069912
70	0.069289
68	0.068851
82	0.068485
49	0.067102
123	0.064729
86	0.063144
5	0.062815
92	0.059099
76	0.058311
11	0.057862
..	...
137	0.010228
22	0.009793
58	0.009278
29	0.008488
112	0.008364
100	0.008028
71	0.007973
15	0.007498
85	0.007336
83	0.007300
98	0.006824
7	0.006652
81	0.006614
10	0.005450
28	0.005022
136	0.004519

```
99                0.004478
8                 0.004474
1                 0.004451
127               0.004420
114               0.003079
89                0.002699
26                0.002437
108               0.002122
25                0.002060
6                 0.001521
91                0.001193
95                0.000964
38                0.000376
109               0.000092

[142 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131543_model_4
          variable  relative_importance  scaled_importance
percentage
0              R_3          3456.553955           1.000000
0.280114
1              R_2          3269.453613           0.945871
0.264952
2              R_1          2485.108643           0.718956
0.201389
3              HAP          2457.256836           0.710898
0.199132
4              P_2           419.272369           0.121298
0.033977
5            P_EMO           252.170685           0.072954
0.020436
6          level_0             0.000000           0.000000
0.000000
7          user_id             0.000000           0.000000
0.000000
8              age             0.000000           0.000000
0.000000
9    user_followed_by          0.000000           0.000000
0.000000
10      user_follows           0.000000           0.000000
0.000000
11  user_posted_photos         0.000000           0.000000
0.000000
```

12	Person	0.000000	0.000000
0.000000			
13	Plant	0.000000	0.000000
0.000000			
14	Food	0.000000	0.000000
0.000000			
15	Collage	0.000000	0.000000
0.000000			
16	Animal	0.000000	0.000000
0.000000			
17	Outdoors	0.000000	0.000000
0.000000			
18	Pet	0.000000	0.000000
0.000000			
19	Book	0.000000	0.000000
0.000000			
20	Dog	0.000000	0.000000
0.000000			
21	Canine	0.000000	0.000000
0.000000			
22	Sky	0.000000	0.000000
0.000000			
23	Alcohol	0.000000	0.000000
0.000000			
24	Crowd	0.000000	0.000000
0.000000			
25	Toy	0.000000	0.000000
0.000000			
26	Cat	0.000000	0.000000
0.000000			
27	Coast	0.000000	0.000000
0.000000			
28	Tree	0.000000	0.000000
0.000000			
29	Beach	0.000000	0.000000
0.000000			
..	...	...	...
...			
90	index	0.000000	0.000000
0.000000			
91	gender	0.000000	0.000000
0.000000			
92	born	0.000000	0.000000

```
0.000000
93          education        0.000000        0.000000
0.000000
94           employed        0.000000        0.000000
0.000000
95             income        0.000000        0.000000
0.000000
96                A_2        0.000000        0.000000
0.000000
97                N_1        0.000000        0.000000
0.000000
98                P_1        0.000000        0.000000
0.000000
99                E_1        0.000000        0.000000
0.000000
100               A_1        0.000000        0.000000
0.000000
101               H_1        0.000000        0.000000
0.000000
102               M_1        0.000000        0.000000
0.000000
103               M_2        0.000000        0.000000
0.000000
104               E_2        0.000000        0.000000
0.000000
105               LON        0.000000        0.000000
0.000000
106               H_2        0.000000        0.000000
0.000000
107               N_2        0.000000        0.000000
0.000000
108               A_3        0.000000        0.000000
0.000000
109               N_3        0.000000        0.000000
0.000000
110               E_3        0.000000        0.000000
0.000000
111               H_3        0.000000        0.000000
0.000000
112               M_3        0.000000        0.000000
0.000000
113               P_3        0.000000        0.000000
0.000000
```

114	participate	0.000000	0.000000
		0.000000	
115	insta_user_id	0.000000	0.000000
		0.000000	
116	start_q	0.000000	0.000000
		0.000000	
117	end_q	0.000000	0.000000
		0.000000	
118	N_EMO	0.000000	0.000000
		0.000000	
119	imagecount	0.000000	0.000000
		0.000000	

```
[120 rows x 4 columns]
### Runnning AutoML for Predicting M ###
Parse progress:
|████████████████████████████████████████████████| 100%
Parse progress:
|████████████████████████████████████████████████| 100%
['level_0', 'user_id', 'age', 'user_followed_by', 'user_follows',
'user_posted_photos', 'Person', 'Plant', 'Food', 'Collage', 'Animal',
'Outdoors', 'Pet', 'Book', 'Dog', 'Canine', 'Sky', 'Alcohol', 'Crowd',
'Toy', 'Cat', 'Coast', 'Tree', 'Beach', 'Sport', 'Teddy Bear', 'Sunlight',
'Light', 'Drawing', 'Sea Life', 'TV', 'Dusk', 'Bikini', 'Sunrise',
'Sunset', 'Swimwear', 'Selfie', 'Beard', 'Woman', 'Cocktail', 'Pool',
'Performer', 'Coffee Cup', 'Tattoo', 'Downtown', 'Musical Instrument',
'Festival', 'City', 'Laptop', 'Pizza', 'Cloud', 'Beer Bottle', 'Money',
'Club', 'Airplane', 'Sketch', 'Sandwich', 'Cafeteria', 'Breakfast',
'Child', 'avg_number_of_faces_over_images_with_faces',
'avg_number_of_faces_over_all_images', 'avg_likes', 'avg_comments',
'happy_flt_pct', 'depressed_flt_pct', 'happy_to_depressed_flt_ratio',
'avg_posts_early_day', 'avg_posts_late_day', 'avg_posts_early_night',
'avg_posts_late_night', 'avg_posts_day', 'avg_posts_night',
'avg_posts_whole_date', 'percentage_animals', 'ANGRY', 'CALM', 'CONFUSED',
'DISGUSTED', 'HAPPY', 'SAD', 'SURPRISED', 'ratio_male', 'ratio_female',
'index', 'id', 'gender', 'born', 'education', 'employed', 'income', 'A_2',
'N_1', 'P_1', 'E_1', 'A_1', 'H_1', 'M_1', 'R_1', 'M_2', 'E_2', 'LON',
'H_2', 'P_2', 'N_2', 'A_3', 'N_3', 'E_3', 'H_3', 'R_2', 'M_3', 'R_3',
'P_3', 'HAP', 'participate', 'insta_user_id', 'completed', 'start_q',
'end_q', 'network_id', 'M', 'N_EMO', 'P_EMO', 'imagecount',
'private_account']
AutoML progress:
```

model_id	mean_residual_deviance	rmse	mse	mae	rmsle
StackedEnsemble_AllModels_0_AutoML_20181021_131619	0.251524	0.501521	0.251524	0.394403	0.0815453
StackedEnsemble_BestOfFamily_0_AutoML_20181021_131619	0.279838	0.528997	0.279838	0.420237	0.0866268
GBM_grid_0_AutoML_20181021_131619_model_2	0.287661	0.53634	0.287661	0.413011	0.0886864
GBM_grid_0_AutoML_20181021_131619_model_1	0.287661	0.53634	0.287661	0.413011	0.0886864
GBM_grid_0_AutoML_20181021_131619_model_3	0.287661	0.53634	0.287661	0.413011	0.0886864
GBM_grid_0_AutoML_20181021_131619_model_0	0.32221	0.567635	0.32221	0.441752	0.0901645
XRT_0_AutoML_20181021_131619	0.512215	0.715692	0.512215	0.537075	0.111546
DRF_0_AutoML_20181021_131619	0.577661	0.76004	0.577661	0.595598	0.116322
GBM_grid_0_AutoML_20181021_131619_model_5	0.637315	0.79832	0.637315	0.609302	0.127124
GLM_grid_0_AutoML_20181021_131619_model_0	0.903937	0.950756	0.903937	0.593761	nan

```
Stack is composed by:
{'Intercept': 6.864197530864199,
'GBM_grid_0_AutoML_20181021_131619_model_2': 0.2803456132684836,
'GBM_grid_0_AutoML_20181021_131619_model_1': 0.2801505115801086,
'GBM_grid_0_AutoML_20181021_131619_model_3': 0.279278387078555,
'GBM_grid_0_AutoML_20181021_131619_model_0': 0.2969908724087612,
'XRT_0_AutoML_20181021_131619': 0.10809571289708278,
'DRF_0_AutoML_20181021_131619': 0.0,
'GBM_grid_0_AutoML_20181021_131619_model_5': 0.2407229368441978,
'GLM_grid_0_AutoML_20181021_131619_model_0': 0.1656161387426658,
'GBM_grid_0_AutoML_20181021_131619_model_6': 0.0,
'GBM_grid_0_AutoML_20181021_131619_model_4': 0.0}
GBM_grid_0_AutoML_20181021_131619_model_2
```

variable	relative_importance	scaled_importance

				percentage
0	M_2	429.259216	1.000000	0.365637
1	M_3	362.906799	0.845426	0.309119
2	M_1	152.265366	0.354717	0.129698
3	P_EMO	59.444035	0.138481	0.050634
4	E_2	51.392685	0.119724	0.043776
5	LON	24.541077	0.057171	0.020904
6	avg_posts_day	11.855874	0.027619	0.010099
7	R_2	9.975935	0.023240	0.008497
8	user_follows	8.120717	0.018918	0.006917
9	R_1	7.334156	0.017086	0.006247
10	income	7.317363	0.017046	0.006233
11	R_3	7.098542	0.016537	0.006046
12	avg_posts_whole_date	4.833802	0.011261	0.004117
13	user_followed_by	3.699295	0.008618	0.003151
14	A_1	3.120237	0.007269	0.002658
15	N_3	2.692183	0.006272	0.002293
16	Animal	2.365767	0.005511	0.002015
17	avg_likes	2.343185	0.005459	0.001996
18	Book	2.149980	0.005009	0.001831
19	Sea Life	2.066715	0.004815	0.001760
20	Collage	1.931938	0.004501	0.001646

21	Outdoors	1.805817	0.004207	0.001538
22	avg_posts_late_night	1.771322	0.004126	0.001509
23	Cat	1.587192	0.003698	0.001352
24	Person	1.412130	0.003290	0.001203
25	H_2	1.057961	0.002465	0.000901
26	H_1	0.901896	0.002101	0.000768
27	depressed_flt_pct	0.660023	0.001538	0.000562
28	HAPPY	0.659653	0.001537	0.000562
29	TV	0.606145	0.001412	0.000516
..	...	...	...	...
90	Downtown	0.000000	0.000000	0.000000
91	Musical Instrument	0.000000	0.000000	0.000000
92	Festival	0.000000	0.000000	0.000000
93	Laptop	0.000000	0.000000	0.000000
94	Pizza	0.000000	0.000000	0.000000
95	Cloud	0.000000	0.000000	0.000000
96	Beer Bottle	0.000000	0.000000	0.000000
97	Money	0.000000	0.000000	0.000000
98	Club	0.000000	0.000000	0.000000
99	Airplane	0.000000	0.000000	0.000000
100	Sketch	0.000000	0.000000	0.000000
101	Sandwich	0.000000	0.000000	

```
                                            0.000000
102             Cafeteria           0.000000              0.000000
0.000000
103             Breakfast           0.000000              0.000000
0.000000
104                 Child           0.000000              0.000000
0.000000
105   avg_posts_early_night         0.000000              0.000000
0.000000
106         avg_posts_night         0.000000              0.000000
0.000000
107       percentage_animals        0.000000              0.000000
0.000000
108                 ANGRY           0.000000              0.000000
0.000000
109              CONFUSED           0.000000              0.000000
0.000000
110             DISGUSTED           0.000000              0.000000
0.000000
111             ratio_male          0.000000              0.000000
0.000000
112                gender           0.000000              0.000000
0.000000
113                   A_2           0.000000              0.000000
0.000000
114                   P_1           0.000000              0.000000
0.000000
115                   P_3           0.000000              0.000000
0.000000
116            participate          0.000000              0.000000
0.000000
117            insta_user_id        0.000000              0.000000
0.000000
118               start_q           0.000000              0.000000
0.000000
119                 end_q           0.000000              0.000000
0.000000

[120 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131619_model_1
              variable  relative_importance  scaled_importance
percentage
0                   M_2           429.259216           1.000000
```

				0.365637
1	M_3	362.906799	0.845426	0.309119
2	M_1	152.265366	0.354717	0.129698
3	P_EMO	59.444035	0.138481	0.050634
4	E_2	51.392685	0.119724	0.043776
5	LON	24.541077	0.057171	0.020904
6	avg_posts_day	11.855874	0.027619	0.010099
7	R_2	9.975935	0.023240	0.008497
8	user_follows	8.120717	0.018918	0.006917
9	R_1	7.334156	0.017086	0.006247
10	income	7.317363	0.017046	0.006233
11	R_3	7.098542	0.016537	0.006046
12	avg_posts_whole_date	4.833802	0.011261	0.004117
13	user_followed_by	3.699295	0.008618	0.003151
14	A_1	3.120237	0.007269	0.002658
15	N_3	2.692183	0.006272	0.002293
16	Animal	2.365767	0.005511	0.002015
17	avg_likes	2.343185	0.005459	0.001996
18	Book	2.149980	0.005009	0.001831
19	Sea Life	2.066715	0.004815	0.001760
20	Collage	1.931938	0.004501	0.001646
21	Outdoors	1.805817	0.004207	0.001538

22	avg_posts_late_night	1.771322	0.004126
	0.001509		
23	Cat	1.587192	0.003698
	0.001352		
24	Person	1.412130	0.003290
	0.001203		
25	H_2	1.057961	0.002465
	0.000901		
26	H_1	0.901896	0.002101
	0.000768		
27	depressed_flt_pct	0.660023	0.001538
	0.000562		
28	HAPPY	0.659653	0.001537
	0.000562		
29	TV	0.606145	0.001412
	0.000516		
..	...	...	...
	...		
90	Downtown	0.000000	0.000000
	0.000000		
91	Musical Instrument	0.000000	0.000000
	0.000000		
92	Festival	0.000000	0.000000
	0.000000		
93	Laptop	0.000000	0.000000
	0.000000		
94	Pizza	0.000000	0.000000
	0.000000		
95	Cloud	0.000000	0.000000
	0.000000		
96	Beer Bottle	0.000000	0.000000
	0.000000		
97	Money	0.000000	0.000000
	0.000000		
98	Club	0.000000	0.000000
	0.000000		
99	Airplane	0.000000	0.000000
	0.000000		
100	Sketch	0.000000	0.000000
	0.000000		
101	Sandwich	0.000000	0.000000
	0.000000		
102	Cafeteria	0.000000	0.000000

```
                              0.000000
103              Breakfast          0.000000              0.000000
0.000000
104                  Child          0.000000              0.000000
0.000000
105   avg_posts_early_night          0.000000              0.000000
0.000000
106         avg_posts_night          0.000000              0.000000
0.000000
107       percentage_animals        0.000000              0.000000
0.000000
108                 ANGRY          0.000000              0.000000
0.000000
109              CONFUSED          0.000000              0.000000
0.000000
110             DISGUSTED          0.000000              0.000000
0.000000
111            ratio_male          0.000000              0.000000
0.000000
112                gender          0.000000              0.000000
0.000000
113                   A_2          0.000000              0.000000
0.000000
114                   P_1          0.000000              0.000000
0.000000
115                   P_3          0.000000              0.000000
0.000000
116            participate          0.000000              0.000000
0.000000
117           insta_user_id         0.000000              0.000000
0.000000
118               start_q          0.000000              0.000000
0.000000
119                 end_q          0.000000              0.000000
0.000000


[120 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131619_model_3
              variable   relative_importance   scaled_importance
percentage
0                   M_2           429.259216            1.000000
0.365637
```

1	M_3	362.906799	0.845426 0.309119
2	M_1	152.265366	0.354717 0.129698
3	P_EMO	59.444035	0.138481 0.050634
4	E_2	51.392685	0.119724 0.043776
5	LON	24.541077	0.057171 0.020904
6	avg_posts_day	11.855874	0.027619 0.010099
7	R_2	9.975935	0.023240 0.008497
8	user_follows	8.120717	0.018918 0.006917
9	R_1	7.334156	0.017086 0.006247
10	income	7.317363	0.017046 0.006233
11	R_3	7.098542	0.016537 0.006046
12	avg_posts_whole_date	4.833802	0.011261 0.004117
13	user_followed_by	3.699295	0.008618 0.003151
14	A_1	3.120237	0.007269 0.002658
15	N_3	2.692183	0.006272 0.002293
16	Animal	2.365767	0.005511 0.002015
17	avg_likes	2.343185	0.005459 0.001996
18	Book	2.149980	0.005009 0.001831
19	Sea Life	2.066715	0.004815 0.001760
20	Collage	1.931938	0.004501 0.001646
21	Outdoors	1.805817	0.004207 0.001538
22	avg_posts_late_night	1.771322	0.004126

				0.001509
23	Cat	1.587192	0.003698	0.001352
24	Person	1.412130	0.003290	0.001203
25	H_2	1.057961	0.002465	0.000901
26	H_1	0.901896	0.002101	0.000768
27	depressed_flt_pct	0.660023	0.001538	0.000562
28	HAPPY	0.659653	0.001537	0.000562
29	TV	0.606145	0.001412	0.000516
..	...	...	...	...
90	Downtown	0.000000	0.000000	0.000000
91	Musical Instrument	0.000000	0.000000	0.000000
92	Festival	0.000000	0.000000	0.000000
93	Laptop	0.000000	0.000000	0.000000
94	Pizza	0.000000	0.000000	0.000000
95	Cloud	0.000000	0.000000	0.000000
96	Beer Bottle	0.000000	0.000000	0.000000
97	Money	0.000000	0.000000	0.000000
98	Club	0.000000	0.000000	0.000000
99	Airplane	0.000000	0.000000	0.000000
100	Sketch	0.000000	0.000000	0.000000
101	Sandwich	0.000000	0.000000	0.000000
102	Cafeteria	0.000000	0.000000	0.000000

103	Breakfast	0.000000	0.000000
		0.000000	
104	Child	0.000000	0.000000
		0.000000	
105	avg_posts_early_night	0.000000	0.000000
		0.000000	
106	avg_posts_night	0.000000	0.000000
		0.000000	
107	percentage_animals	0.000000	0.000000
		0.000000	
108	ANGRY	0.000000	0.000000
		0.000000	
109	CONFUSED	0.000000	0.000000
		0.000000	
110	DISGUSTED	0.000000	0.000000
		0.000000	
111	ratio_male	0.000000	0.000000
		0.000000	
112	gender	0.000000	0.000000
		0.000000	
113	A_2	0.000000	0.000000
		0.000000	
114	P_1	0.000000	0.000000
		0.000000	
115	P_3	0.000000	0.000000
		0.000000	
116	participate	0.000000	0.000000
		0.000000	
117	insta_user_id	0.000000	0.000000
		0.000000	
118	start_q	0.000000	0.000000
		0.000000	
119	end_q	0.000000	0.000000
		0.000000	

[120 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131619_model_0

	variable	relative_importance \
0	M_2	4.529324e+02
1	M_3	2.960785e+02
2	M_1	1.247503e+02
3	P_EMO	6.421555e+01
4	R_2	3.106983e+01

5	E_2	2.858539e+01
6	A_1	2.488260e+01
7	avg_posts_early_night	1.689229e+01
8	R_1	1.209211e+01
9	Book	1.205690e+01
10	HAP	8.912526e+00
11	income	7.740061e+00
12	avg_number_of_faces_over_images_with_faces	6.299901e+00
13	N_EMO	4.364622e+00
14	Light	4.212370e+00
15	employed	4.058250e+00
16	Cat	3.941044e+00
17	insta_user_id	3.628630e+00
18	happy_flt_pct	3.522746e+00
19	avg_comments	3.468505e+00
20	SURPRISED	3.019348e+00
21	E_3	2.977954e+00
22	H_2	2.958513e+00
23	avg_posts_day	2.874657e+00
24	age	2.780424e+00
25	born	2.686221e+00
26	Animal	2.671373e+00
27	avg_posts_whole_date	2.294991e+00
28	LON	2.018537e+00
29	percentage_animals	1.935822e+00
..	...	...
90	Drawing	9.134214e-02
91	N_3	9.033993e-02
92	user_follows	8.277132e-02
93	level_0	7.982619e-02
94	Pool	7.005387e-02
95	Alcohol	6.869723e-02
96	Sunlight	6.760471e-02
97	TV	6.254451e-02
98	Club	5.618365e-02
99	Crowd	5.463341e-02
100	Sunset	4.700723e-02
101	Festival	4.505716e-02
102	Beard	4.202875e-02
103	Bikini	3.819080e-02
104	Musical Instrument	3.278108e-02
105	gender	3.009564e-02
106	start_q	2.710504e-02

107	Airplane	2.494637e-02
108	Dusk	1.896958e-02
109	CONFUSED	1.431199e-02
110	DISGUSTED	9.486264e-03
111	Cloud	7.859711e-03
112	Sunrise	7.788842e-03
113	Money	7.313772e-03
114	Downtown	6.804824e-03
115	Cafeteria	3.980851e-03
116	Beer Bottle	2.799007e-03
117	Laptop	2.379067e-03
118	Cocktail	2.004767e-03
119	participate	1.833655e-09

	scaled_importance	percentage
0	1.000000e+00	3.841931e-01
1	6.536925e-01	2.511442e-01
2	2.754280e-01	1.058175e-01
3	1.417773e-01	5.446988e-02
4	6.859706e-02	2.635452e-02
5	6.311183e-02	2.424713e-02
6	5.493668e-02	2.110630e-02
7	3.729538e-02	1.432863e-02
8	2.669738e-02	1.025695e-02
9	2.661965e-02	1.022709e-02
10	1.967739e-02	7.559917e-03
11	1.708878e-02	6.565391e-03
12	1.390914e-02	5.343798e-03
13	9.636366e-03	3.702226e-03
14	9.300219e-03	3.573080e-03
15	8.959947e-03	3.442350e-03
16	8.701175e-03	3.342932e-03
17	8.011417e-03	3.077931e-03
18	7.777642e-03	2.988117e-03
19	7.657887e-03	2.942108e-03
20	6.666223e-03	2.561117e-03
21	6.574831e-03	2.526005e-03
22	6.531908e-03	2.509514e-03
23	6.346768e-03	2.438385e-03
24	6.138718e-03	2.358453e-03
25	5.930732e-03	2.278547e-03
26	5.897950e-03	2.265952e-03
27	5.066961e-03	1.946692e-03

```
28         4.456596e-03  1.712194e-03
29         4.273976e-03  1.642032e-03
..                  ...           ...
90         2.016684e-04  7.747961e-05
91         1.994557e-04  7.662950e-05
92         1.827454e-04  7.020954e-05
93         1.762431e-04  6.771138e-05
94         1.546674e-04  5.942215e-05
95         1.516722e-04  5.827140e-05
96         1.492601e-04  5.734469e-05
97         1.380880e-04  5.305245e-05
98         1.240442e-04  4.765695e-05
99         1.206216e-04  4.634197e-05
100        1.037842e-04  3.987318e-05
101        9.947879e-05  3.821907e-05
102        9.279256e-05  3.565027e-05
103        8.431898e-05  3.239477e-05
104        7.237521e-05  2.780606e-05
105        6.644620e-05  2.552818e-05
106        5.984346e-05  2.299145e-05
107        5.507746e-05  2.116038e-05
108        4.188170e-05  1.609066e-05
109        3.159850e-05  1.213993e-05
110        2.094411e-05  8.046582e-06
111        1.735295e-05  6.666882e-06
112        1.719648e-05  6.606769e-06
113        1.614760e-05  6.203798e-06
114        1.502393e-05  5.772091e-06
115        8.789063e-06  3.376698e-06
116        6.179746e-06  2.374216e-06
117        5.252589e-06  2.018009e-06
118        4.426195e-06  1.700514e-06
119        4.048408e-12  1.555371e-12


[120 rows x 4 columns]
XRT_0_AutoML_20181021_131619
                variable  relative_importance  scaled_importance
percentage
0                    M_2           769.231934           1.000000
0.292758
1                    M_3           629.787659           0.818723
0.239688
```

2	E_2	235.239807	0.305811	0.089529
3	P_EMO	217.618164	0.282903	0.082822
4	HAP	98.759514	0.128387	0.037586
5	P_2	96.012207	0.124816	0.036541
6	M_1	80.149033	0.104194	0.030504
7	P_3	47.602272	0.061883	0.018117
8	R_1	36.881252	0.047946	0.014036
9	R_2	31.833645	0.041384	0.012115
10	A_2	24.394445	0.031713	0.009284
11	avg_posts_whole_date	23.049202	0.029964	0.008772
12	happy_flt_pct	22.326096	0.029024	0.008497
13	Canine	20.684458	0.026890	0.007872
14	born	14.542696	0.018905	0.005535
15	income	13.743235	0.017866	0.005230
16	N_EMO	12.932358	0.016812	0.004922
17	level_0	12.031684	0.015641	0.004579
18	H_1	11.542986	0.015006	0.004393
19	depressed_flt_pct	11.060665	0.014379	0.004210
20	N_2	10.893519	0.014162	0.004146
21	Sea Life	10.108905	0.013142	0.003847
22	R_3	10.102755	0.013134	0.003845
23	avg_posts_early_night	8.898852	0.011568	

				0.003387
24	education	8.522319	0.011079	0.003243
25	Dog	7.626408	0.009914	0.002902
26	employed	6.999582	0.009099	0.002664
27	A_3	6.965215	0.009055	0.002651
28	avg_posts_night	6.478395	0.008422	0.002466
29	index	6.440433	0.008373	0.002451
..	...	...	...	...
90	avg_posts_day	0.207407	0.000270	0.000079
91	Coffee Cup	0.138889	0.000181	0.000053
92	N_3	0.138882	0.000181	0.000053
93	Toy	0.129628	0.000169	0.000049
94	Pizza	0.088884	0.000116	0.000034
95	Festival	0.083313	0.000108	0.000032
96	Airplane	0.083313	0.000108	0.000032
97	Child	0.074074	0.000096	0.000028
98	Person	0.074071	0.000096	0.000028
99	Downtown	0.059259	0.000077	0.000023
100	user_posted_photos	0.055556	0.000072	0.000021
101	P_1	0.055556	0.000072	0.000021
102	avg_posts_early_day	0.055555	0.000072	0.000021
103	Drawing	0.055555	0.000072	0.000021

104	Sky	0.000000	0.000000
		0.000000	
105	Crowd	0.000000	0.000000
		0.000000	
106	Sport	0.000000	0.000000
		0.000000	
107	Beard	0.000000	0.000000
		0.000000	
108	Woman	0.000000	0.000000
		0.000000	
109	Musical Instrument	0.000000	0.000000
		0.000000	
110	City	0.000000	0.000000
		0.000000	
111	Laptop	0.000000	0.000000
		0.000000	
112	Cloud	0.000000	0.000000
		0.000000	
113	Beer Bottle	0.000000	0.000000
		0.000000	
114	Club	0.000000	0.000000
		0.000000	
115	Sketch	0.000000	0.000000
		0.000000	
116	Cafeteria	0.000000	0.000000
		0.000000	
117	Breakfast	0.000000	0.000000
		0.000000	
118	ANGRY	0.000000	0.000000
		0.000000	
119	SAD	0.000000	0.000000
		0.000000	

[120 rows x 4 columns]
GBM_grid_0_AutoML_20181021_131619_model_5

	variable	relative_importance	scaled_importance	percentage
0	M_2	3430.021973	1.000000	2.518295e-01
1	M_3	2290.889648	0.667894	1.681953e-01
2	E_2	1187.613403	0.346241	8.719364e-02

3	HAP	813.877869	0.237281
	5.975427e-02		
4	P_EMO	696.865967	0.203167
	5.116335e-02		
5	M_1	610.359863	0.177946
	4.481214e-02		
6	P_2	491.294434	0.143234
	3.607045e-02		
7	P_3	474.223877	0.138257
	3.481714e-02		
8	R_2	296.789917	0.086527
	2.179008e-02		
9	A_1	264.098999	0.076996
	1.938994e-02		
10	A_2	183.470093	0.053489
	1.347023e-02		
11	R_1	182.282257	0.053143
	1.338302e-02		
12	R_3	178.462418	0.052030
	1.310257e-02		
13	Book	146.565079	0.042730
	1.076069e-02		
14	income	125.516785	0.036594
	9.215343e-03		
15	A_3	101.343582	0.029546
	7.440566e-03		
16	N_EMO	69.864304	0.020368
	5.129382e-03		
17	H_1	65.656410	0.019142
	4.820442e-03		
18	E_3	59.870495	0.017455
	4.395644e-03		
19	LON	59.322708	0.017295
	4.355426e-03		
20	insta_user_id	59.159561	0.017248
	4.343448e-03		
21	index	55.964561	0.016316
	4.108874e-03		
22	depressed_flt_pct	54.883259	0.016001
	4.029486e-03		
23	avg_comments	52.323486	0.015255
	3.841549e-03		
24	ratio_male	50.583263	0.014747

				3.713783e-03
25	user_id	48.614807	0.014173	3.569261e-03
26	percentage_animals	44.863140	0.013080	3.293816e-03
27	avg_posts_night	42.857418	0.012495	3.146558e-03
28	user_followed_by	41.865913	0.012206	3.073762e-03
29	Food	40.367058	0.011769	2.963717e-03
..	...	...	...	...
90	Sunset	7.265468	0.002118	5.334249e-04
91	Downtown	6.600903	0.001924	4.846331e-04
92	Cafeteria	6.510420	0.001898	4.779899e-04
93	Bikini	6.306012	0.001838	4.629824e-04
94	Dusk	6.228287	0.001816	4.572759e-04
95	Sunlight	6.193094	0.001806	4.546921e-04
96	Drawing	6.132694	0.001788	4.502576e-04
97	Alcohol	5.658647	0.001650	4.154534e-04
98	Pool	5.647859	0.001647	4.146613e-04
99	gender	5.431679	0.001584	3.987896e-04
100	Sport	5.364359	0.001564	3.938470e-04
101	ANGRY	5.256793	0.001533	3.859496e-04
102	Festival	5.209584	0.001519	3.824836e-04
103	Money	4.546574	0.001326	3.338058e-04
104	Sunrise	4.304135	0.001255	3.160062e-04

105	participate	4.240712	0.001236
			3.113497e-04
106	Child	4.057724	0.001183
			2.979149e-04
107	Swimwear	3.673144	0.001071
			2.696793e-04
108	Cocktail	3.644845	0.001063
			2.676017e-04
109	Crowd	3.539871	0.001032
			2.598945e-04
110	Beach	3.352409	0.000977
			2.461312e-04
111	Musical Instrument	3.027942	0.000883
			2.223091e-04
112	Sketch	2.987076	0.000871
			2.193087e-04
113	Coffee Cup	2.838759	0.000828
			2.084194e-04
114	Tattoo	2.744263	0.000800
			2.014816e-04
115	Club	2.548390	0.000743
			1.871008e-04
116	City	2.087445	0.000609
			1.532586e-04
117	Airplane	1.653867	0.000482
			1.214256e-04
118	Beer Bottle	0.770634	0.000225
			5.657936e-05
119	DISGUSTED	0.010631	0.000003
			7.805182e-07

[120 rows x 4 columns]
GLM_grid_0_AutoML_20181021_131619_model_0

	names	coefficients
		\
0	Intercept	27.195293
124	M_2	0.212870
135	M_3	0.193805
122	M_1	0.173141
125	E_2	0.111095
43	Book	-17.398059
134	R_2	0.060428

120	A_1	0.059798
73	Tattoo	34.266826
57	Light	-14.829417
130	A_3	0.038293
48	Crowd	16.831856
79	Pizza	-25.636814
89	Child	14.447304
78	Laptop	42.902153
38	Food	-1.636275
128	P_2	0.033880
4	income.$20,000 to $29,999	-0.058944
136	R_3	0.024716
6	income.$40,000 to $49,999	0.055302
116	A_2	0.028773
11	income.$90,000 to $99,999	0.053403
126	LON	-0.019980
26	gender.Female	0.052705
80	Cloud	5.767120
27	gender.Male	-0.052340
5	income.$30,000 to $39,999	-0.050798
123	R_1	0.021008
81	Beer Bottle	25.248467
110	SAD	-4.914271
..	...	...
82	Money	-3.147257
3	income.$150,000 or more	-0.004425
77	City	-0.653549
23	education.High school graduate	0.004087
21	employed.Unable to work	-0.004078
30	level_0	-0.000088
74	Downtown	-0.582668
14	employed.A homemaker	0.003685
75	Musical Instrument	0.185533
98	avg_posts_late_day	0.004872
42	Pet	0.060693
45	Canine	0.063428
44	Dog	0.059196
47	Alcohol	0.142952
96	happy_to_depressed_flt_ratio	0.000524
91	avg_number_of_faces_over_all_images	0.003274
90	avg_number_of_faces_over_images_with_faces	0.003189
28	participate.No	0.001551
19	employed.Retired	-0.001473

117	N_1	0.000613
41	Outdoors	0.060358
35	user_posted_photos	0.000002
68	Woman	0.057469
18	employed.Out of work but not currently looking for work	-0.001121
29	participate.Yes	-0.001088
10	income.$80,000 to $89,999	-0.000985
137	P_3	-0.000467
111	SURPRISED	-0.031403
113	ratio_female	-0.002345
131	N_3	-0.000101

	standardized_coefficients	abs_standardized_coef
0	6.860339	6.860339
124	0.463909	0.463909
135	0.458716	0.458716
122	0.286072	0.286072
125	0.196284	0.196284
43	-0.137689	0.137689
134	0.123312	0.123312
120	0.112892	0.112892
73	0.089953	0.089953
57	-0.080792	0.080792
130	0.079605	0.079605
48	0.079478	0.079478
79	-0.077154	0.077154
89	0.068306	0.068306
78	0.067680	0.067680
38	-0.066629	0.066629
128	0.061078	0.061078
4	-0.058944	0.058944
136	0.057582	0.057582
6	0.055302	0.055302
116	0.054298	0.054298
11	0.053403	0.053403
126	-0.053388	0.053388
26	0.052705	0.052705
80	0.052362	0.052362
27	-0.052340	0.052340
5	-0.050798	0.050798
123	0.050556	0.050556
81	0.050200	0.050200
110	-0.048884	0.048884

```
  ..                    ...                    ...
82               -0.004469               0.004469
3                -0.004425               0.004425
77               -0.004398               0.004398
23                0.004087               0.004087
21               -0.004078               0.004078
30               -0.004062               0.004062
74               -0.003921               0.003921
14                0.003685               0.003685
75                0.003636               0.003636
98                0.002558               0.002558
42                0.002524               0.002524
45                0.002492               0.002492
44                0.002322               0.002322
47                0.002234               0.002234
96                0.002219               0.002219
91                0.001886               0.001886
90                0.001837               0.001837
28                0.001551               0.001551
19               -0.001473               0.001473
117               0.001467               0.001467
41                0.001421               0.001421
35                0.001245               0.001245
68                0.001186               0.001186
18               -0.001121               0.001121
29               -0.001088               0.001088
10               -0.000985               0.000985
137              -0.000972               0.000972
111              -0.000951               0.000951
113              -0.000531               0.000531
131              -0.000243               0.000243


[145 rows x 4 columns]
### Runnning AutoML for Predicting A ###
Parse progress:
|███████████████████████████████████████████████████| 100%
Parse progress:
|███████████████████████████████████████████████████| 100%
['level_0', 'user_id', 'age', 'user_followed_by', 'user_follows',
'user_posted_photos', 'Person', 'Plant', 'Food', 'Collage', 'Animal',
'Outdoors', 'Pet', 'Book', 'Dog', 'Canine', 'Sky', 'Alcohol', 'Crowd',
'Toy', 'Cat', 'Coast', 'Tree', 'Beach', 'Sport', 'Teddy Bear', 'Sunlight',
```

'Light', 'Drawing', 'Sea Life', 'TV', 'Dusk', 'Bikini', 'Sunrise',
'Sunset', 'Swimwear', 'Selfie', 'Beard', 'Woman', 'Cocktail', 'Pool',
'Performer', 'Coffee Cup', 'Tattoo', 'Downtown', 'Musical Instrument',
'Festival', 'City', 'Laptop', 'Pizza', 'Cloud', 'Beer Bottle', 'Money',
'Club', 'Airplane', 'Sketch', 'Sandwich', 'Cafeteria', 'Breakfast',
'Child', 'avg_number_of_faces_over_images_with_faces',
'avg_number_of_faces_over_all_images', 'avg_likes', 'avg_comments',
'happy_flt_pct', 'depressed_flt_pct', 'happy_to_depressed_flt_ratio',
'avg_posts_early_day', 'avg_posts_late_day', 'avg_posts_early_night',
'avg_posts_late_night', 'avg_posts_day', 'avg_posts_night',
'avg_posts_whole_date', 'percentage_animals', 'ANGRY', 'CALM', 'CONFUSED',
'DISGUSTED', 'HAPPY', 'SAD', 'SURPRISED', 'ratio_male', 'ratio_female',
'index', 'id', 'gender', 'born', 'education', 'employed', 'income', 'A_2',
'N_1', 'P_1', 'E_1', 'A_1', 'H_1', 'M_1', 'R_1', 'M_2', 'E_2', 'LON',
'H_2', 'P_2', 'N_2', 'A_3', 'N_3', 'E_3', 'H_3', 'R_2', 'M_3', 'R_3',
'P_3', 'HAP', 'participate', 'insta_user_id', 'completed', 'start_q',
'end_q', 'network_id', 'A', 'N_EMO', 'P_EMO', 'imagecount',
'private_account']
AutoML progress:
|███| 100%

model_id	mean_residual_deviance	rmse	mse	mae	rmsle
StackedEnsemble_BestOfFamily_0_AutoML_20181021_131651	0.247767	0.497762	0.247767	0.409095	0.0737715
GBM_grid_0_AutoML_20181021_131651_model_0	0.365754	0.604776	0.365754	0.465123	0.0951371
GBM_grid_0_AutoML_20181021_131651_model_2	0.377431	0.614354	0.377431	0.431032	0.101124
GBM_grid_0_AutoML_20181021_131651_model_1	0.377431	0.614354	0.377431	0.431032	0.101124
GBM_grid_0_AutoML_20181021_131651_model_3	0.377431	0.614354	0.377431	0.431032	0.101124
DRF_0_AutoML_20181021_131651	0.589346	0.767688	0.589346	0.573222	0.121228
GLM_grid_0_AutoML_20181021_131651_model_0	0.633089	0.795669	0.633089	0.550744	0.110459
XRT_0_AutoML_20181021_131651	0.63797	0.79873	0.63797	0.597739	0.126024

		0.928 661	0.862 41	0.700 883	0.141 966
GBM_grid_0_AutoML_20181021_131651_model_5	0.86241	0.928661	0.86241	0.700883	0.141966
GBM_grid_0_AutoML_20181021_131651_model_6	1.49988	1.22469	1.49988	0.935701	0.179467

Stack is composed by:
{'Intercept': 6.950617283950617,
'GBM_grid_0_AutoML_20181021_131651_model_0': 0.8046532790525894,
'DRF_0_AutoML_20181021_131651': 0.0,
'GLM_grid_0_AutoML_20181021_131651_model_0': 0.3701481313838627,
'XRT_0_AutoML_20181021_131651': 0.3185458403585142}
GBM_grid_0_AutoML_20181021_131651_model_0

	variable	relative_importance	scaled_importance	percentage
0	A_1	266.176025	1.000000	0.295799
1	A_3	198.270737	0.744886	0.220336
2	A_2	149.710022	0.562447	0.166371
3	M_2	24.898262	0.093541	0.027669
4	HAP	22.807730	0.085687	0.025346
5	income	16.617697	0.062431	0.018467
6	Teddy Bear	15.985620	0.060057	0.017765
7	M_3	14.632075	0.054971	0.016260
8	Beach	12.087844	0.045413	0.013433
9	SAD	11.826334	0.044431	0.013142
10	Sky	8.415318	0.031616	0.009352
11	P_EMO	8.181071	0.030736	0.009092
12	H_3	7.626025	0.028650	0.008475
13	N_1	7.368253	0.027682	0.008188
14	P_3	6.733737	0.025298	

0.007483

15	Sea Life	6.676429	0.025083	0.007419
16	M_1	6.408918	0.024078	0.007122
17	ratio_male	5.416742	0.020350	0.006020
18	H_1	4.887313	0.018361	0.005431
19	R_3	4.885208	0.018353	0.005429
20	Beard	4.412429	0.016577	0.004903
21	Airplane	4.300163	0.016155	0.004779
22	Cocktail	4.121963	0.015486	0.004581
23	E_2	4.067938	0.015283	0.004521
24	avg_comments	3.914466	0.014706	0.004350
25	avg_posts_whole_date	3.840079	0.014427	0.004267
26	Plant	3.134130	0.011775	0.003483
27	user_follows	2.863694	0.010759	0.003182
28	happy_flt_pct	2.709486	0.010179	0.003011
29	E_1	2.650055	0.009956	0.002945
..	...	...	...	...
90	start_q	0.173523	0.000652	0.000193
91	Cloud	0.170741	0.000641	0.000190
92	Coffee Cup	0.165518	0.000622	0.000184
93	Laptop	0.144554	0.000543	0.000161
94	ANGRY	0.130878	0.000492	0.000145

95	Dusk	0.109017	0.000410
			0.000121
96	Breakfast	0.099683	0.000374
			0.000111
97	Dog	0.086780	0.000326
			0.000096
98	Festival	0.079342	0.000298
			0.000088
99	City	0.072100	0.000271
			0.000080
100	Book	0.064724	0.000243
			0.000072
101	level_0	0.064336	0.000242
			0.000071
102	Pool	0.063042	0.000237
			0.000070
103	Sunlight	0.055823	0.000210
			0.000062
104	Tattoo	0.039553	0.000149
			0.000044
105	Pizza	0.032902	0.000124
			0.000037
106	Alcohol	0.030436	0.000114
			0.000034
107	Money	0.028825	0.000108
			0.000032
108	Musical Instrument	0.022826	0.000086
			0.000025
109	Animal	0.018038	0.000068
			0.000020
110	Drawing	0.016259	0.000061
			0.000018
111	Cat	0.014300	0.000054
			0.000016
112	Club	0.013495	0.000051
			0.000015
113	Sunset	0.011838	0.000044
			0.000013
114	Beer Bottle	0.006341	0.000024
			0.000007
115	participate	0.003802	0.000014
			0.000004
116	Child	0.003789	0.000014

```
                0.000004
117              Sketch              0.002074              0.000008
0.000002
118    percentage_animals            0.001515              0.000006
0.000002
119              Sunrise             0.001076              0.000004
0.000001

[120 rows x 4 columns]
GLM_grid_0_AutoML_20181021_131651_model_0
                                                    names   coefficients
\
0                                               Intercept  -2.506264e+00
130                                                   A_3   2.891069e-01
116                                                   A_2   3.041554e-01
120                                                   A_1   2.389473e-01
119                                                   E_1   5.291436e-02
135                                                   M_3   3.933791e-02
6                               income.$40,000 to $49,999  -7.557677e-02
47                                                Alcohol  -5.002769e+00
33                                        user_followed_by -1.206962e-04
138                                                   HAP   3.545694e-02
136                                                   R_3  -2.698763e-02
113                                            ratio_female -2.382594e-01
126                                                   LON   1.690110e-02
36                                                 Person  -1.613460e-01
2                              income.$100,000 to $149,999 -4.626319e-02
94                                             happy_flt_pct -1.783431e-01
85                                                 Sketch   3.304917e+01
35                                      user_posted_photos -9.828968e-05
50                                                    Cat  -3.360524e+00
55                                              Teddy Bear -6.712054e+00
49                                                    Toy   3.713669e-01
86                                               Sandwich   5.144077e+00
83                                                   Club   2.479691e+01
76                                                Festival -9.284870e+00
137                                                   P_3   1.925444e-02
31                                                user_id -3.613741e-11
139                                           insta_user_id -3.602626e-11
133                                                   H_3   1.696807e-02
125                                                   E_2  -1.923607e-02
54                                                  Sport   3.398080e+00
..                                                     ...            ...
```

15	employed.A student	5.846068e-03
132	E_3	2.719364e-03
103	avg_posts_whole_date	-6.564756e-03
78	Laptop	-3.150950e+00
18	employed.Out of work but not currently looking for work	4.518024e-03
108	DISGUSTED	6.256540e+00
71	Performer	-3.497823e-01
23	education.High school graduate	-4.140298e-03
104	percentage_animals	-4.053703e-02
98	avg_posts_late_day	-6.672293e-03
128	P_2	-1.743590e-03
45	Canine	-1.500279e-01
131	N_3	1.275361e-03
144	imagecount	-7.323902e-06
66	Selfie	-7.753396e-01
56	Sunlight	3.770144e-01
1	income.$10,000 to $19,999	-2.510204e-03
90	avg_number_of_faces_over_images_with_faces	4.272909e-03
75	Musical Instrument	1.478297e-01
63	Sunrise	-2.213376e-01
44	Dog	-9.275470e-02
64	Sunset	-2.119711e-01
61	Dusk	-1.737854e-01
77	City	-1.791474e-01
141	end_q	4.080638e-13
91	avg_number_of_faces_over_all_images	1.768902e-03
140	start_q	2.162185e-13
82	Money	7.478555e-03
101	avg_posts_day	-1.007768e-04
74	Downtown	-4.714217e-03

	standardized_coefficients	abs_standardized_coef
0	6.931663	6.931663
130	0.566859	0.566859
116	0.529596	0.529596
120	0.425976	0.425976
119	0.093462	0.093462
135	0.091648	0.091648
6	-0.075577	0.075577
47	-0.068388	0.068388
33	-0.066859	0.066859
138	0.063977	0.063977
136	-0.060514	0.060514

113	-0.056167	0.056167
126	0.048152	0.048152
36	-0.046626	0.046626
2	-0.046263	0.046263
94	-0.045221	0.045221
85	0.044498	0.044498
35	-0.043963	0.043963
50	-0.042905	0.042905
55	-0.041548	0.041548
49	0.041220	0.041220
86	0.040189	0.040189
83	0.039381	0.039381
76	-0.039205	0.039205
137	0.038945	0.038945
31	-0.037926	0.037926
139	-0.037810	0.037810
133	0.036831	0.036831
125	-0.035470	0.035470
54	0.035070	0.035070
..	...	...
15	0.005846	0.005846
132	0.005720	0.005720
103	-0.004784	0.004784
78	-0.004777	0.004777
18	0.004518	0.004518
108	0.004439	0.004439
71	-0.004246	0.004246
23	-0.004140	0.004140
104	-0.003880	0.003880
98	-0.003232	0.003232
128	-0.003084	0.003084
45	-0.003083	0.003083
131	0.002994	0.002994
144	-0.002827	0.002827
66	-0.002585	0.002585
56	0.002566	0.002566
1	-0.002510	0.002510
90	0.002249	0.002249
75	0.001980	0.001980
63	-0.001934	0.001934
44	-0.001894	0.001894
64	-0.001852	0.001852
61	-0.001519	0.001519

```
77                                   -0.001273                     0.001273
141                                   0.001244                     0.001244
91                                    0.000931                     0.000931
140                                   0.000659                     0.000659
82                                    0.000106                     0.000106
101                                  -0.000051                     0.000051
74                                   -0.000034                     0.000034


[145 rows x 4 columns]
XRT_0_AutoML_20181021_131651
                               variable   relative_importance   \
0                                   A_1             392.067200
1                                   A_3             285.495148
2                                   A_2             203.174942
3                            Teddy Bear             109.348862
4                                 P_EMO              95.955063
5                                   HAP              63.496605
6                                   M_3              61.166405
7                                   M_2              55.279339
8                                Animal              22.530088
9                                Tattoo              17.109858
10                                  N_1              15.713072
11                                  Dog              15.583248
12                               income              14.730859
13                                N_EMO              14.664827
14                        happy_flt_pct              13.809988
15                    depressed_flt_pct              12.866664
16                        avg_posts_day              12.667103
17                                  E_1              10.188131
18                                  Sky              10.051063
19                          participate               9.899414
20                                  H_2               8.050570
21                                HAPPY               7.383941
22         happy_to_depressed_flt_ratio               7.107405
23                                Cloud               6.250002
24                           ratio_male               6.181452
25                                  LON               5.982020
26                  avg_posts_whole_date               5.908200
27                                  Pet               5.729629
28                                  E_3               5.717193
29                                  H_3               5.709260
..                                  ...                    ...
```

90	Cafeteria	0.166667
91	Child	0.166667
92	Alcohol	0.166666
93	avg_number_of_faces_over_images_with_faces	0.166664
94	Toy	0.133333
95	ANGRY	0.129630
96	M_1	0.111111
97	Sunlight	0.074074
98	Drawing	0.074074
99	Pizza	0.074074
100	Food	0.074074
101	Cocktail	0.074071
102	Club	0.074071
103	Dusk	0.055556
104	avg_posts_early_night	0.055555
105	Sport	0.000000
106	Bikini	0.000000
107	Swimwear	0.000000
108	Beard	0.000000
109	Downtown	0.000000
110	Festival	0.000000
111	Money	0.000000
112	Airplane	0.000000
113	Sandwich	0.000000
114	Breakfast	0.000000
115	CALM	0.000000
116	CONFUSED	0.000000
117	DISGUSTED	0.000000
118	gender	0.000000
119	P_3	0.000000

	scaled_importance	percentage
0	1.000000	0.242804
1	0.728179	0.176805
2	0.518215	0.125825
3	0.278903	0.067719
4	0.244741	0.059424
5	0.161953	0.039323
6	0.156010	0.037880
7	0.140995	0.034234
8	0.057465	0.013953
9	0.043640	0.010596
10	0.040077	0.009731

11	0.039746	0.009651
12	0.037572	0.009123
13	0.037404	0.009082
14	0.035224	0.008552
15	0.032817	0.007968
16	0.032308	0.007845
17	0.025986	0.006309
18	0.025636	0.006225
19	0.025249	0.006131
20	0.020534	0.004986
21	0.018833	0.004573
22	0.018128	0.004402
23	0.015941	0.003871
24	0.015766	0.003828
25	0.015258	0.003705
26	0.015069	0.003659
27	0.014614	0.003548
28	0.014582	0.003541
29	0.014562	0.003536
..	...	...
90	0.000425	0.000103
91	0.000425	0.000103
92	0.000425	0.000103
93	0.000425	0.000103
94	0.000340	0.000083
95	0.000331	0.000080
96	0.000283	0.000069
97	0.000189	0.000046
98	0.000189	0.000046
99	0.000189	0.000046
100	0.000189	0.000046
101	0.000189	0.000046
102	0.000189	0.000046
103	0.000142	0.000034
104	0.000142	0.000034
105	0.000000	0.000000
106	0.000000	0.000000
107	0.000000	0.000000
108	0.000000	0.000000
109	0.000000	0.000000
110	0.000000	0.000000
111	0.000000	0.000000
112	0.000000	0.000000

```
113            0.000000      0.000000
114            0.000000      0.000000
115            0.000000      0.000000
116            0.000000      0.000000
117            0.000000      0.000000
118            0.000000      0.000000
119            0.000000      0.000000

[120 rows x 4 columns]
### Runnning AutoML for Predicting PERMA ###
Parse progress:
|████████████████████████████████████████████████████████████| 100%
Parse progress:
|████████████████████████████████████████████████████████████| 100%


['level_0', 'user_id', 'age', 'user_followed_by', 'user_follows',
'user_posted_photos', 'Person', 'Plant', 'Food', 'Collage', 'Animal',
'Outdoors', 'Pet', 'Book', 'Dog', 'Canine', 'Sky', 'Alcohol', 'Crowd',
'Toy', 'Cat', 'Coast', 'Tree', 'Beach', 'Sport', 'Teddy Bear', 'Sunlight',
'Light', 'Drawing', 'Sea Life', 'TV', 'Dusk', 'Bikini', 'Sunrise',
'Sunset', 'Swimwear', 'Selfie', 'Beard', 'Woman', 'Cocktail', 'Pool',
'Performer', 'Coffee Cup', 'Tattoo', 'Downtown', 'Musical Instrument',
'Festival', 'City', 'Laptop', 'Pizza', 'Cloud', 'Beer Bottle', 'Money',
'Club', 'Airplane', 'Sketch', 'Sandwich', 'Cafeteria', 'Breakfast',
'Child', 'avg_number_of_faces_over_images_with_faces',
'avg_number_of_faces_over_all_images', 'avg_likes', 'avg_comments',
'happy_flt_pct', 'depressed_flt_pct', 'happy_to_depressed_flt_ratio',
'avg_posts_early_day', 'avg_posts_late_day', 'avg_posts_early_night',
'avg_posts_late_night', 'avg_posts_day', 'avg_posts_night',
'avg_posts_whole_date', 'percentage_animals', 'ANGRY', 'CALM', 'CONFUSED',
'DISGUSTED', 'HAPPY', 'SAD', 'SURPRISED', 'ratio_male', 'ratio_female',
'index', 'id', 'gender', 'born', 'education', 'employed', 'income', 'A_2',
'N_1', 'P_1', 'E_1', 'A_1', 'H_1', 'M_1', 'R_1', 'M_2', 'E_2', 'LON',
'H_2', 'P_2', 'N_2', 'A_3', 'N_3', 'E_3', 'H_3', 'R_2', 'M_3', 'R_3',
'P_3', 'HAP', 'participate', 'insta_user_id', 'completed', 'start_q',
'end_q', 'network_id', 'PERMA', 'N_EMO', 'P_EMO', 'imagecount',
'private_account']
AutoML progress:
|████████████████████████████████████████████████████████████| 100%
```

model_id	mean_residual_deviance	rmse	mse	mae	rmsle

GLM_grid_0_AutoML_20181021_131720_model_0	0.0570319	0.238813	0.0570319	0.154758	0.0300169
StackedEnsemble_BestOfFamily_0_AutoML_20181021_131720	0.0574613	0.239711	0.0574613	0.164687	0.0302812
StackedEnsemble_AllModels_0_AutoML_20181021_131720	0.0624484	0.249897	0.0624484	0.188539	0.0324656
GBM_grid_0_AutoML_20181021_131720_model_2	0.175935	0.419446	0.175935	0.336354	0.0567074
GBM_grid_0_AutoML_20181021_131720_model_1	0.175935	0.419446	0.175935	0.336354	0.0567074
GBM_grid_0_AutoML_20181021_131720_model_3	0.175935	0.419446	0.175935	0.336354	0.0567074
GBM_grid_0_AutoML_20181021_131720_model_0	0.237228	0.487061	0.237228	0.370391	0.0676238
GBM_grid_0_AutoML_20181021_131720_model_5	0.327684	0.572437	0.327684	0.441205	0.08323
XRT_0_AutoML_20181021_131720	0.457085	0.676081	0.457085	0.492718	0.0991185
DRF_0_AutoML_20181021_131720	0.476093	0.689995	0.476093	0.516977	0.0998705

	names	coefficients	standardized_coefficients \
0	Intercept	-4.124464e-01	7.048399
136	R_3	6.362399e-02	0.138462
135	M_3	5.662103e-02	0.133424
132	E_3	5.716712e-02	0.132780
124	M_2	5.791579e-02	0.129504
120	A_1	6.537383e-02	0.127566
119	E_1	6.202495e-02	0.125737
123	R_1	5.927087e-02	0.125244
138	HAP	6.188349e-02	0.124156
134	R_2	5.391900e-02	0.119708
125	E_2	6.004715e-02	0.111163
122	M_1	5.788219e-02	0.110584
130	A_3	5.645545e-02	0.109326
116	A_2	6.009521e-02	0.109051
143	P_EMO	5.844471e-02	0.095495
137	P_3	4.510277e-02	0.095441
128	P_2	4.638287e-02	0.085518

118	P_1	3.700757e-02	0.067644
4	income.$20,000 to $29,999	2.734597e-02	0.027346
36	Person	-1.021632e-01	-0.027216
26	gender.Female	2.258632e-02	0.022586
27	gender.Male	-2.257955e-02	-0.022580
6	income.$40,000 to $49,999	-2.041613e-02	-0.020416
131	N_3	-7.035262e-03	-0.017798
54	Sport	2.818185e+00	0.017784
113	ratio_female	-8.471411e-02	-0.017654
88	Breakfast	-6.780545e+00	-0.016811
133	H_3	8.204430e-03	0.016662
73	Tattoo	8.673441e+00	0.014806
96	happy_to_depressed_flt_ratio	4.918111e-03	0.013403
..	...	...	...
139	insta_user_id	-1.437413e-12	-0.001538
141	end_q	4.415884e-13	0.001433
100	avg_posts_late_night	3.693804e-03	0.001414
63	Sunrise	1.759715e-01	0.001386
98	avg_posts_late_day	-2.642126e-03	-0.001371
34	user_follows	-1.065097e-06	-0.001343
66	Selfie	4.180308e-01	0.001288
64	Sunset	1.613243e-01	0.001271
28	participate.No	1.247959e-03	0.001248
31	user_id	-1.105374e-12	-0.001183
16	employed.Employed for wages	-1.060263e-03	-0.001060
79	Pizza	2.669812e-01	0.001059
74	Downtown	-2.881043e-01	-0.001013
140	start_q	-2.883400e-13	-0.000936
40	Animal	2.964425e-02	0.000841
33	user_followed_by	-1.701516e-06	-0.000827
38	Food	1.253622e-02	0.000781
8	income.$60,000 to $69,999	-7.357994e-04	-0.000736
58	Drawing	-2.140719e-01	-0.000711
30	level_0	-1.583053e-05	-0.000697
103	avg_posts_whole_date	6.506511e-04	0.000587
112	ratio_male	3.562966e-03	0.000531
47	Alcohol	-3.024657e-02	-0.000516
129	N_2	-1.543920e-04	-0.000348
69	Cocktail	-2.692113e-02	-0.000298
19	employed.Retired	-2.963943e-04	-0.000296
108	DISGUSTED	1.799108e-01	0.000176
111	SURPRISED	-6.167616e-03	-0.000137
75	Musical Instrument	4.580471e-03	0.000089

```
25      education.Some high school  0.000000e+00              0.000000


     abs_standardized_coefficients
0                     7.048399
136                   0.138462
135                   0.133424
132                   0.132780
124                   0.129504
120                   0.127566
119                   0.125737
123                   0.125244
138                   0.124156
134                   0.119708
125                   0.111163
122                   0.110584
130                   0.109326
116                   0.109051
143                   0.095495
137                   0.095441
128                   0.085518
118                   0.067644
4                     0.027346
36                    0.027216
26                    0.022586
27                    0.022580
6                     0.020416
131                   0.017798
54                    0.017784
113                   0.017654
88                    0.016811
133                   0.016662
73                    0.014806
96                    0.013403
..                         ...
139                   0.001538
141                   0.001433
100                   0.001414
63                    0.001386
98                    0.001371
34                    0.001343
66                    0.001288
64                    0.001271
28                    0.001248
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31	0.001183
16	0.001060
79	0.001059
74	0.001013
140	0.000936
40	0.000841
33	0.000827
38	0.000781
8	0.000736
58	0.000711
30	0.000697
103	0.000587
112	0.000531
47	0.000516
129	0.000348
69	0.000298
19	0.000296
108	0.000176
111	0.000137
75	0.000089
25	0.000000

[145 rows x 4 columns]