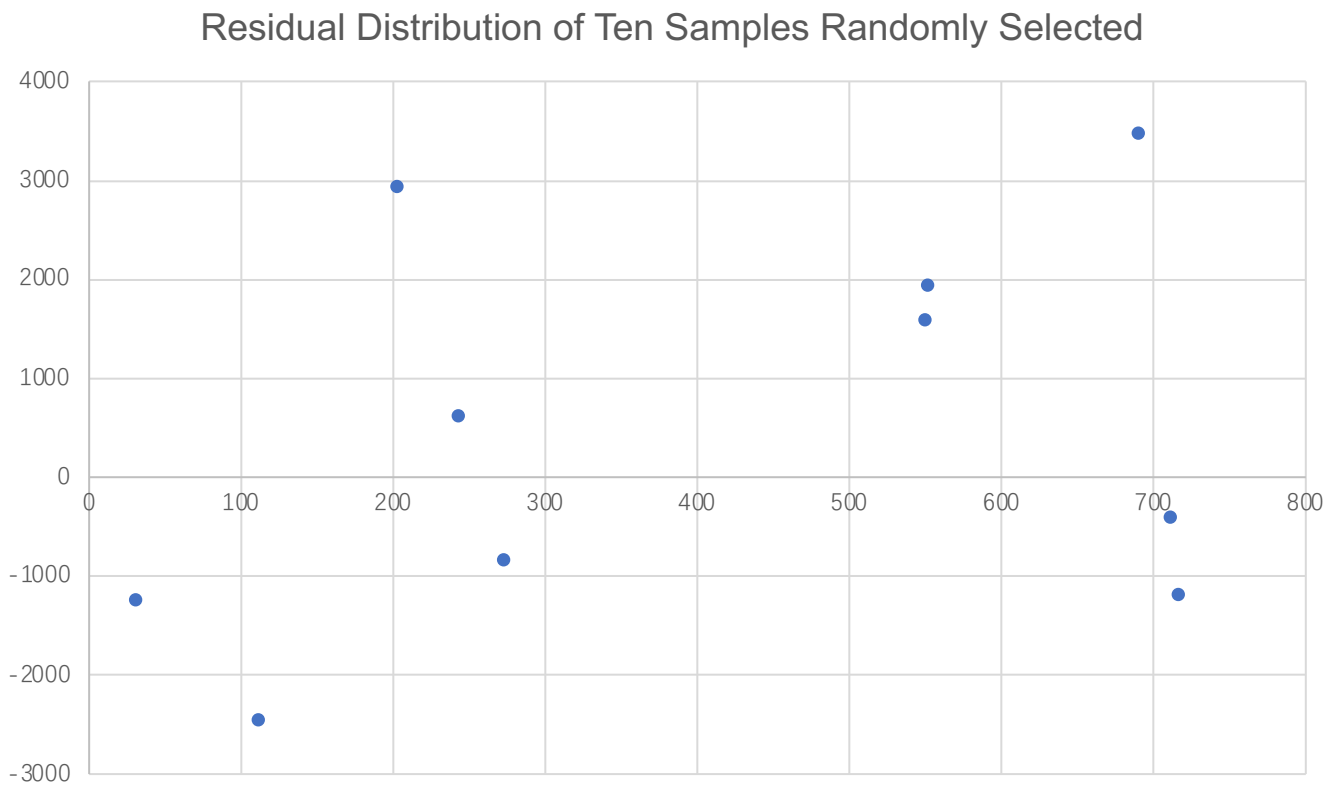
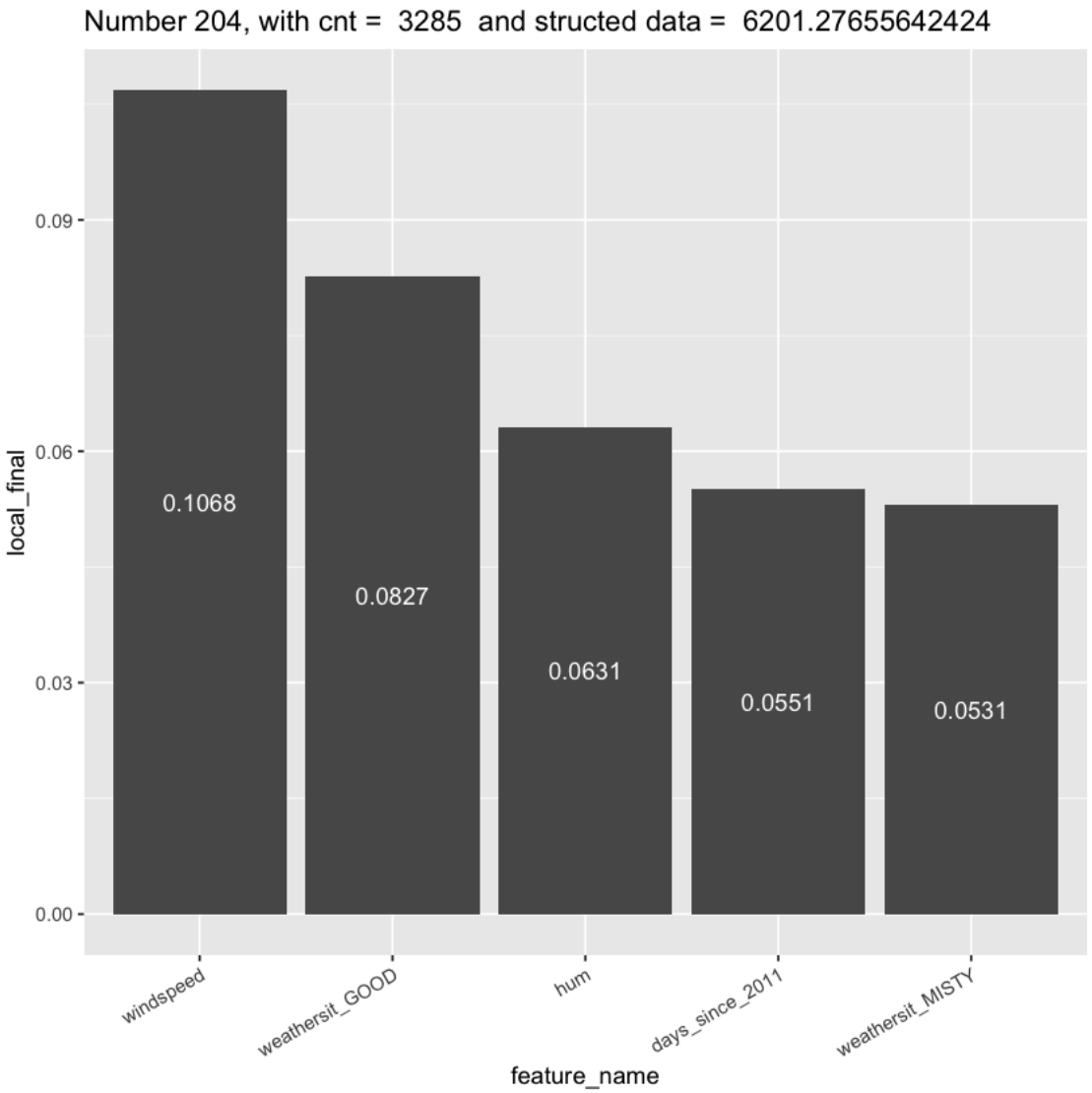
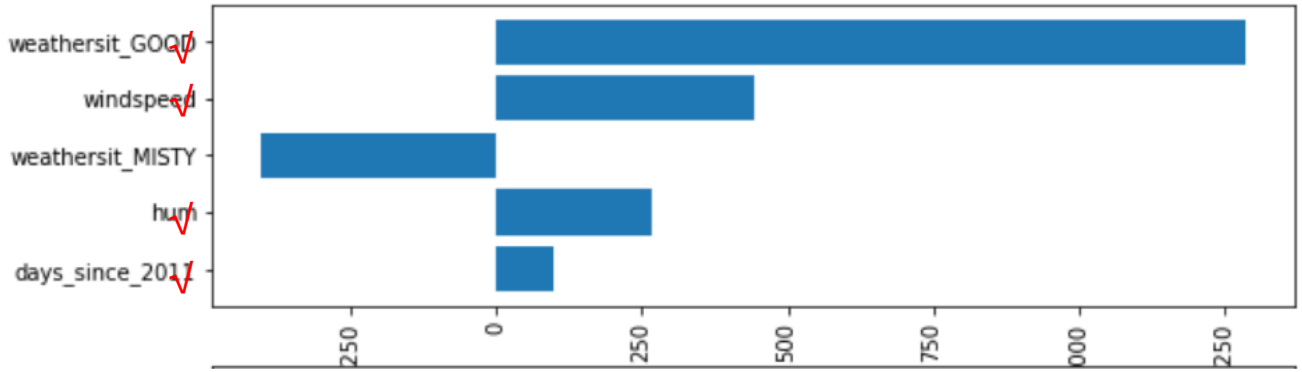
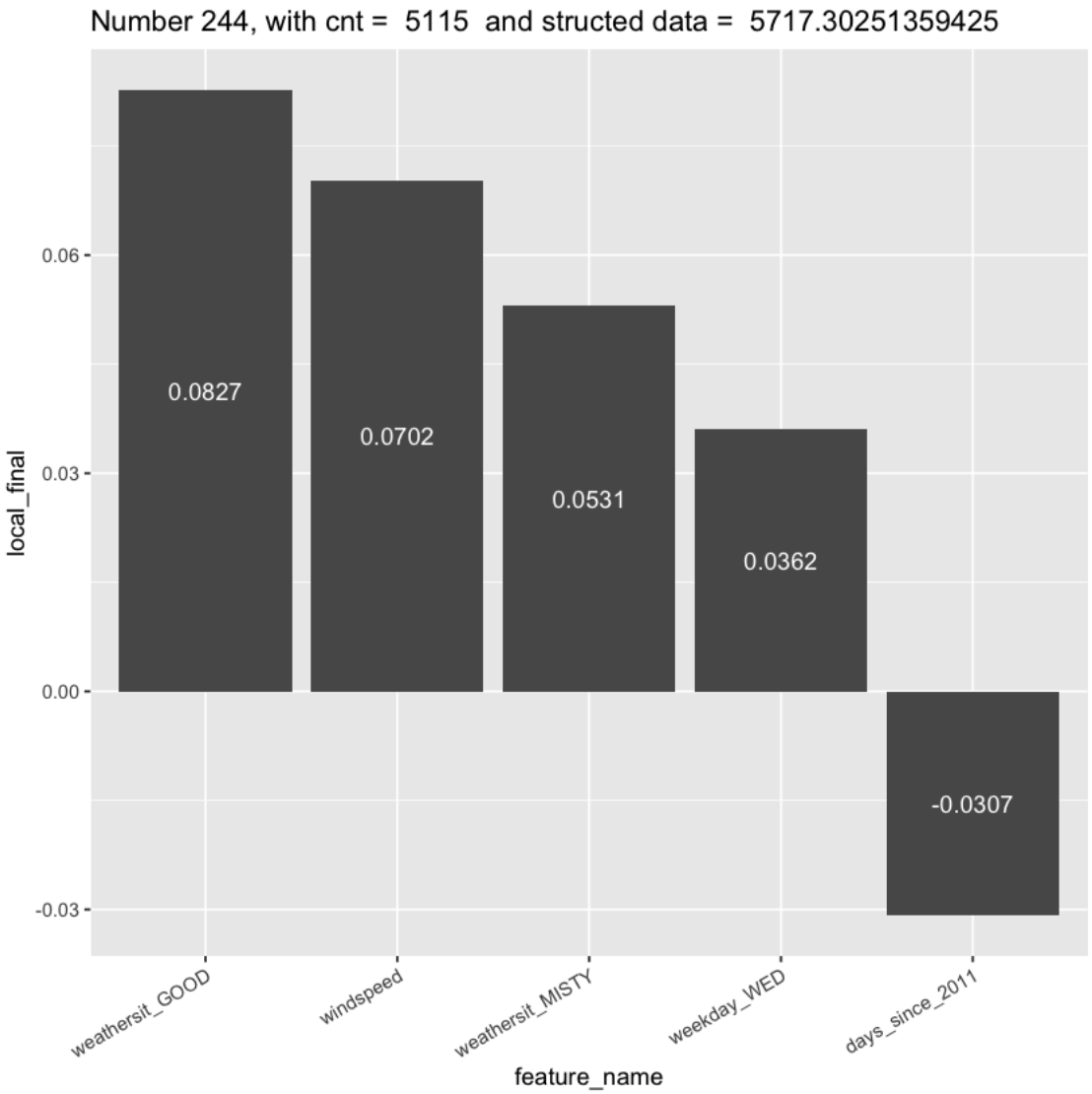
Local Explanation


Residual Distribution of Ten Samples Randomly Selected
4000
3000
2000
1000
0
-1000
-2000
-3000
0
100
200
300
400
500
600
700
800

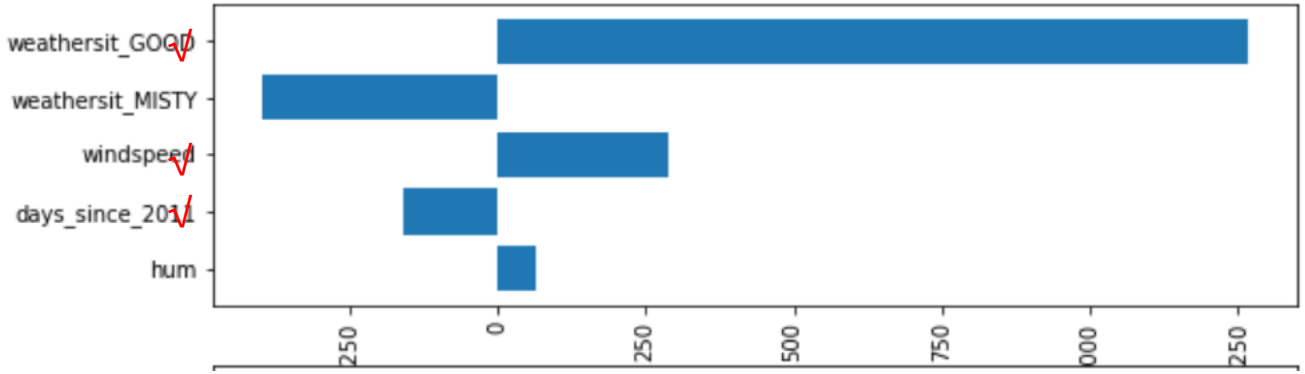

Number 204, with cnt = 3285 and structed data = 6201.27655642424
local_final
0.09
0.06
0.03
0.00
0.1068
0.0827
0.0631
0.0551
0.0531
windspeed
weathersit_GOOD
hum
days_since_2011
weathersit_MISTY
feature_name

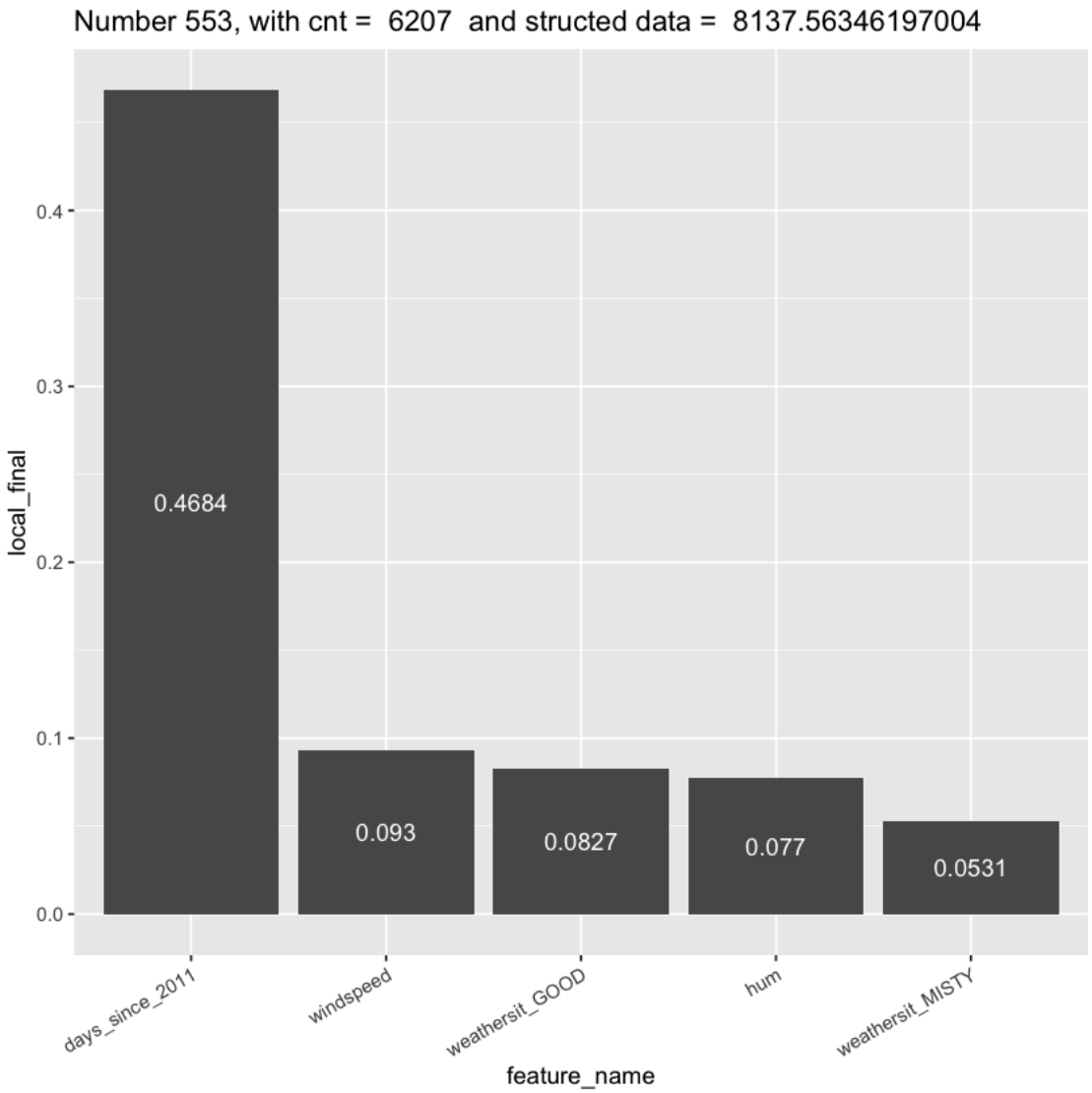
0.8

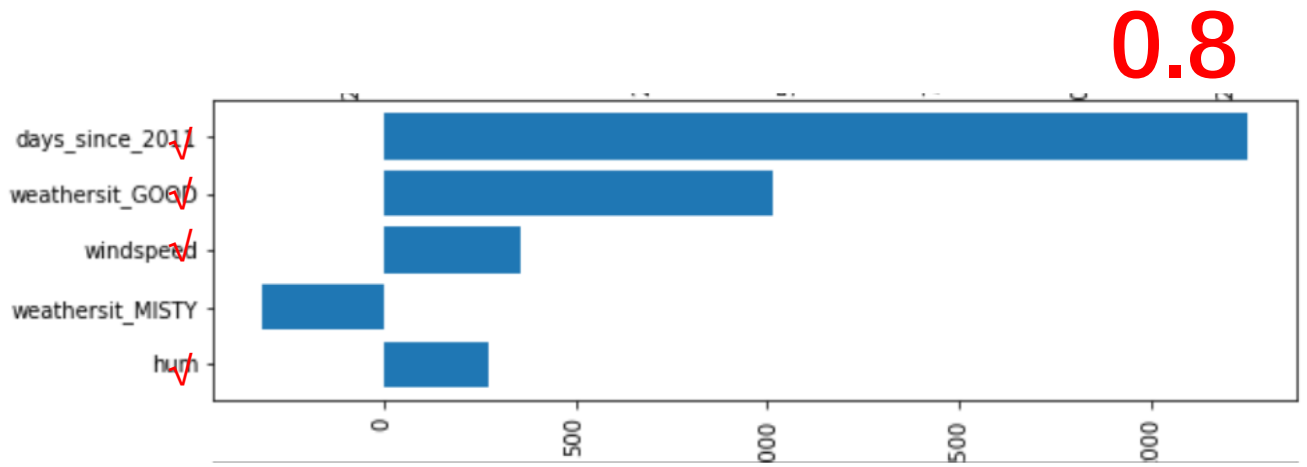

weathersit_GOOD
windspeed
weathersit_MISTY
hum
days_since_2011
250
0
250
500
750
000
250

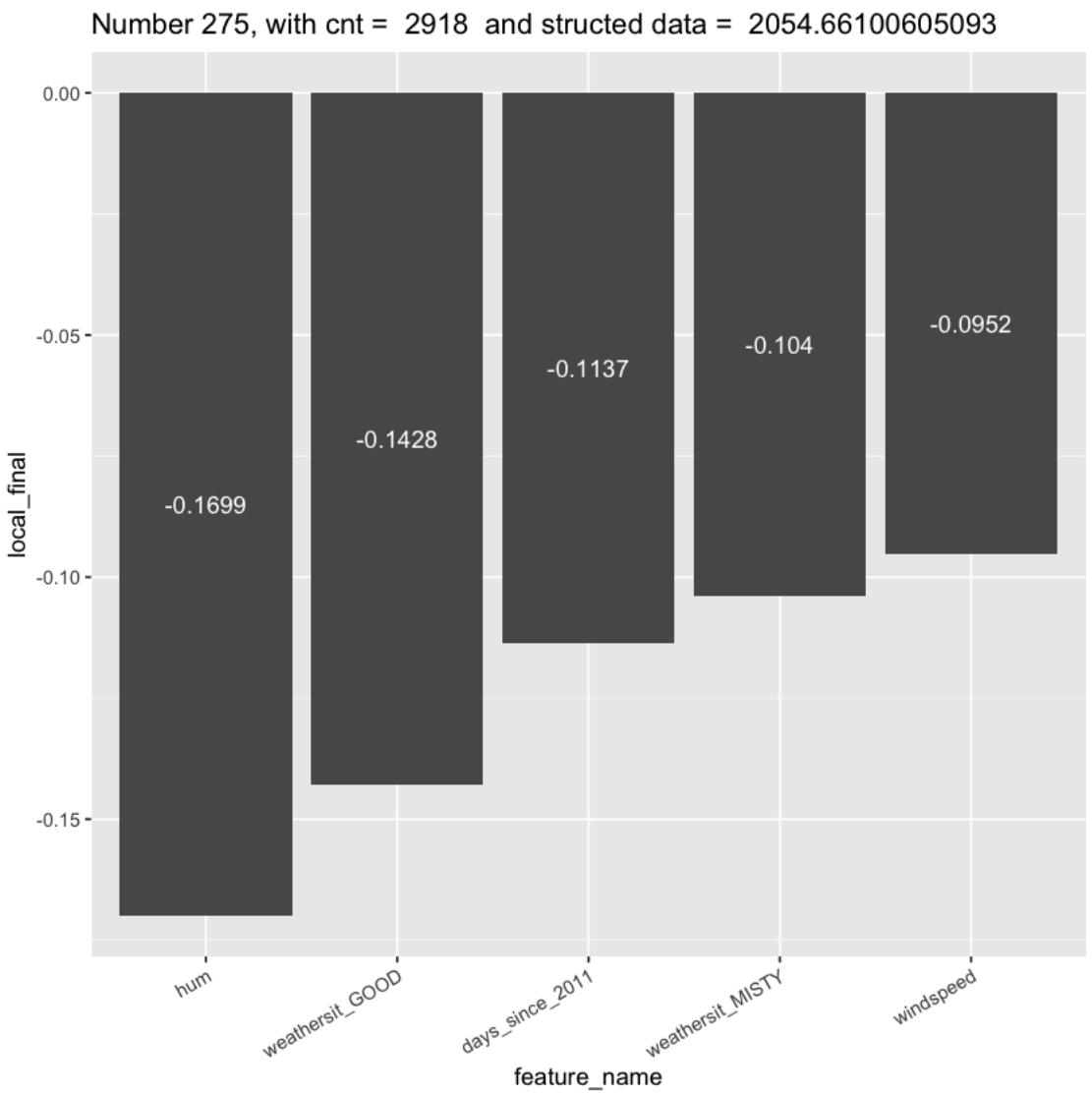

Number 244, with cnt = 5115 and structed data = 5717.30251359425
local_final
0.06
0.03
0.00
-0.03
0.0827
0.0702
0.0531
0.0362
-0.0307
weathersit_GOOD
windspeed
weathersit_MISTY
weekday_WED
days_since_2011
feature_name

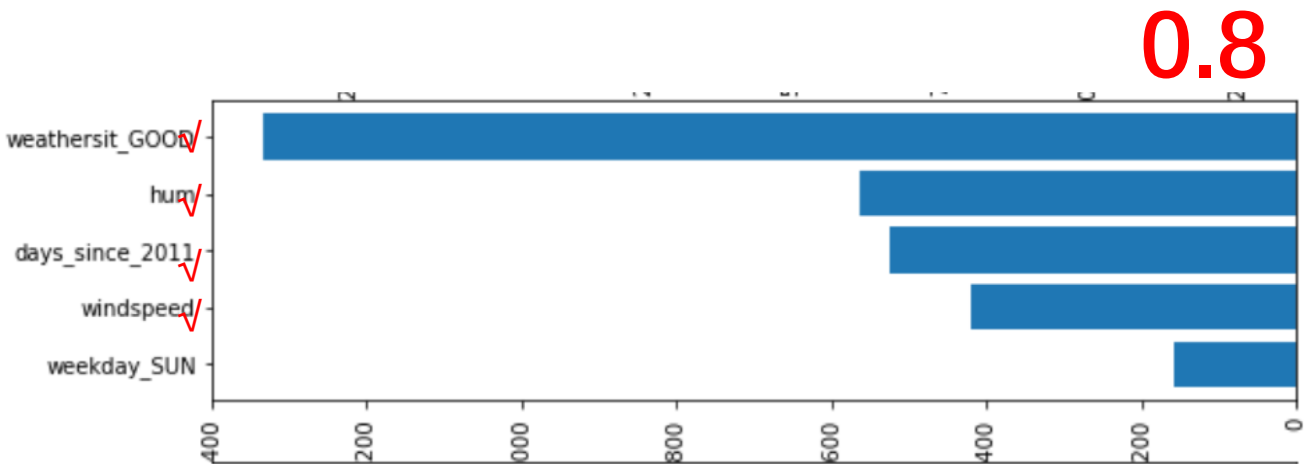
0.6

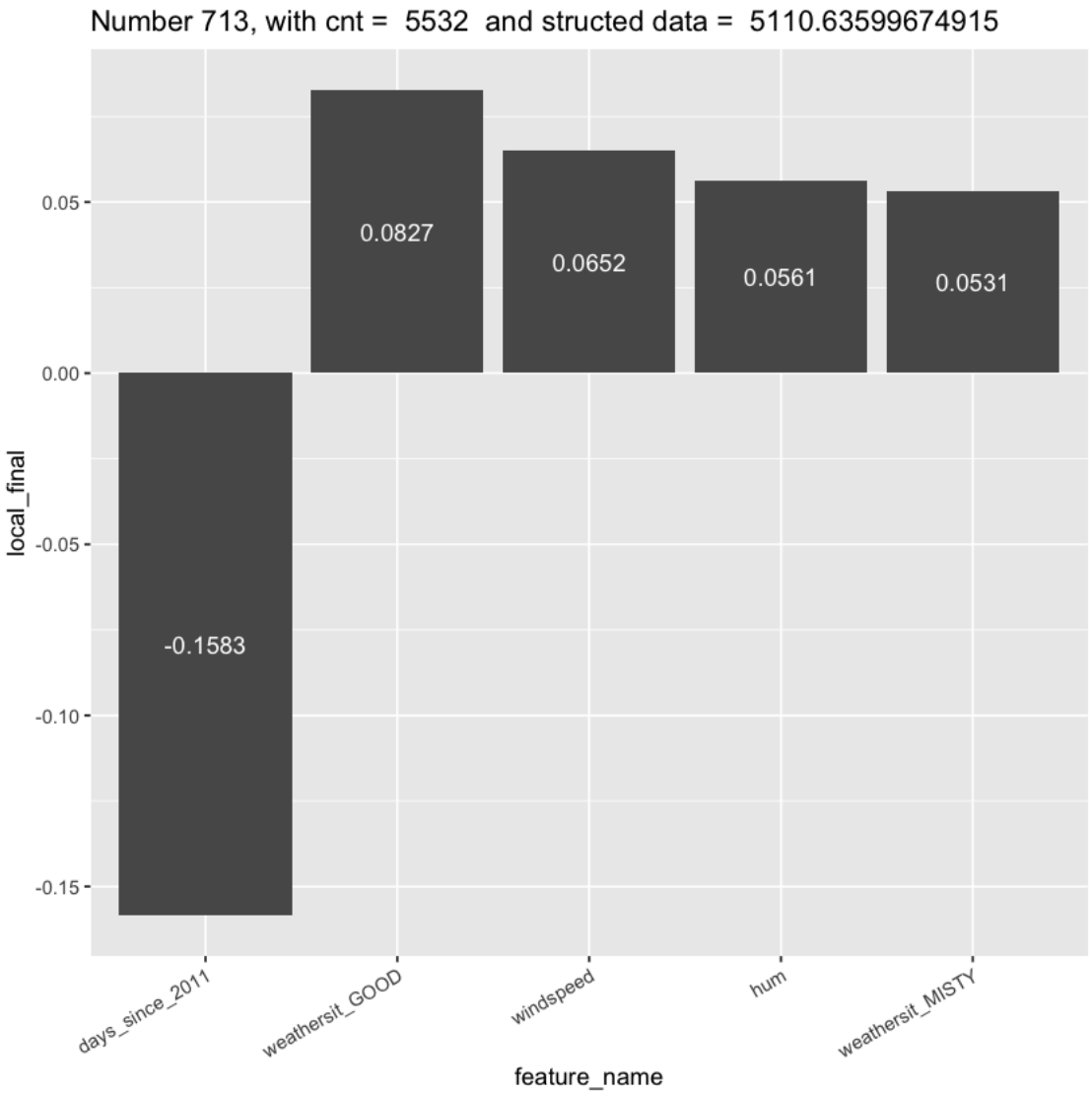

weathersit_GOOD
weathersit_MISTY
windspeed
days_since_2011
hum
250
0
250
500
750
000
250


Number 553, with cnt = 6207 and structed data = 8137.56346197004
local_final
0.4
0.3
0.2
0.1
0.0
0.4684
0.093
0.0827
0.077
0.0531
days_since_2011
windspeed
weathersit_GOOD
hum
weathersit_MISTY
feature_name

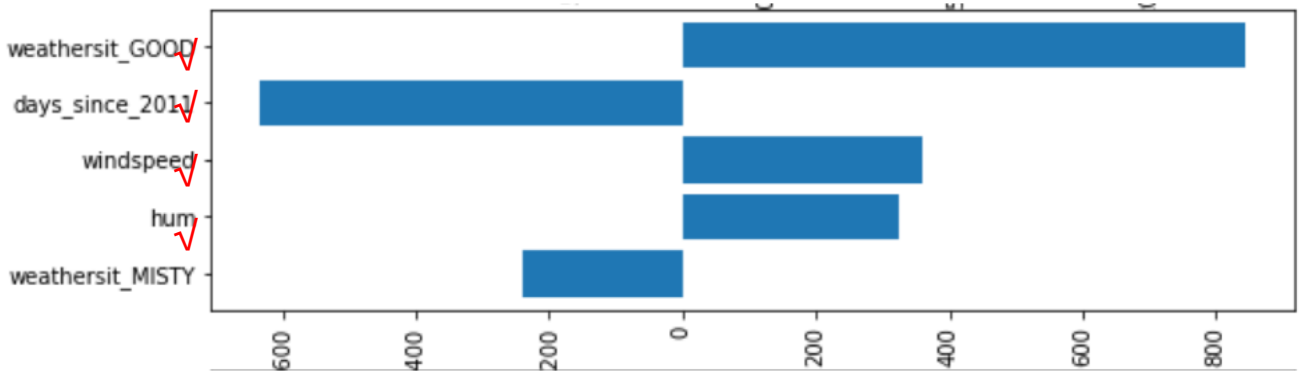

0.8
days_since_2011
weathersit_GOOD
windspeed
weathersit_MISTY
hum
0
500
000
500
000

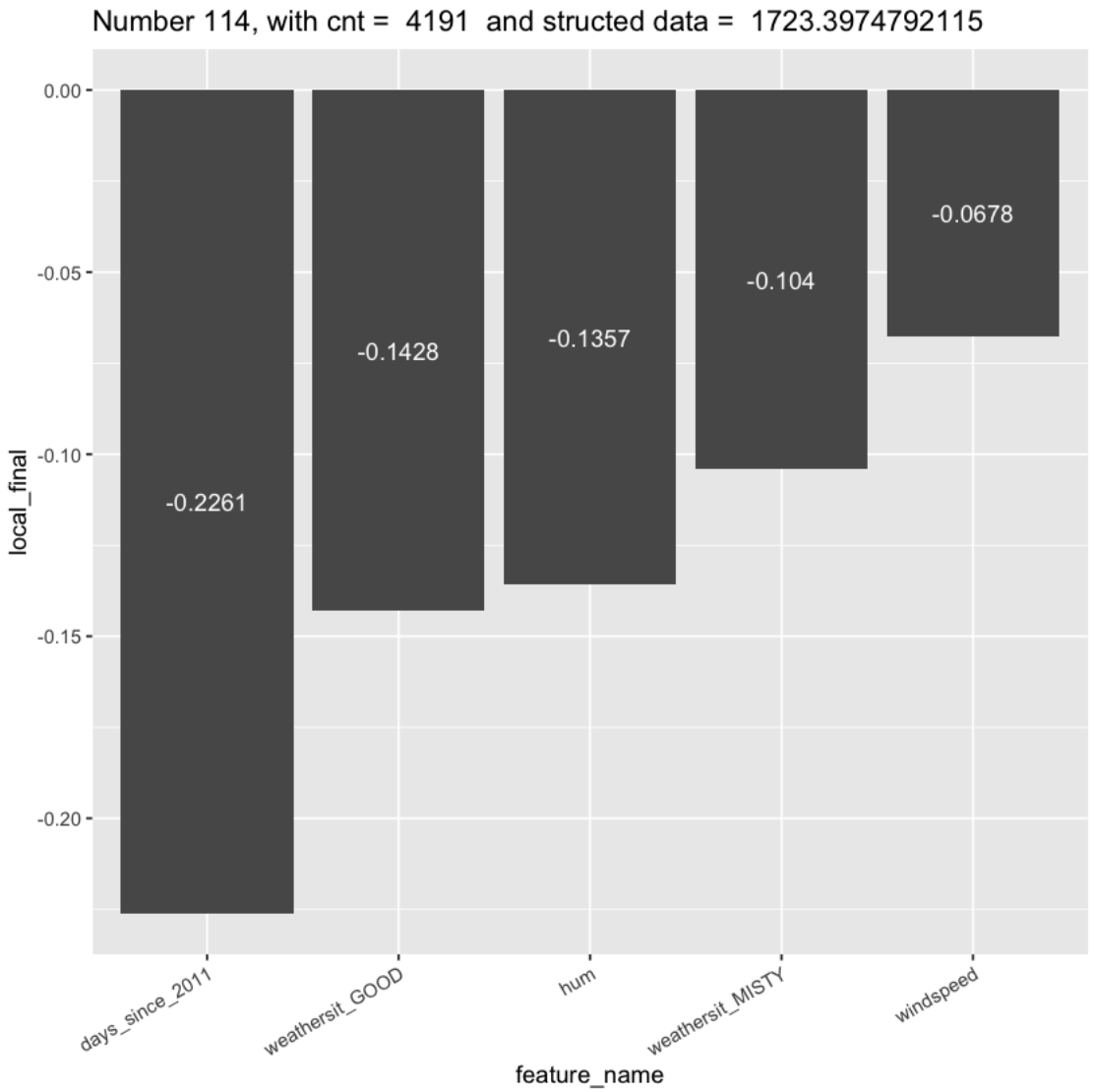

Number 275, with cnt = 2918 and structed data = 2054.66100605093
0.00
-0.05
-0.10
-0.15
local_final
-0.1699
-0.1428
-0.1137
-0.104
-0.0952
hum
weathersit_GOOD
days_since_2011
weathersit_MISTY
windspeed
feature_name

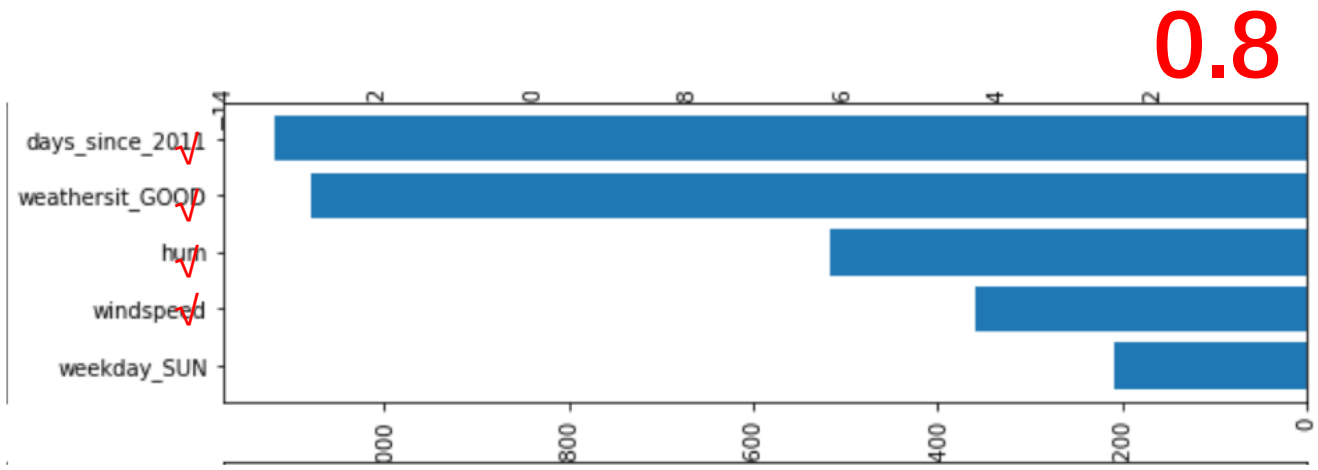

0.8
weathersit_GOOD
hum
days_since_2011
windspeed
weekday_SUN

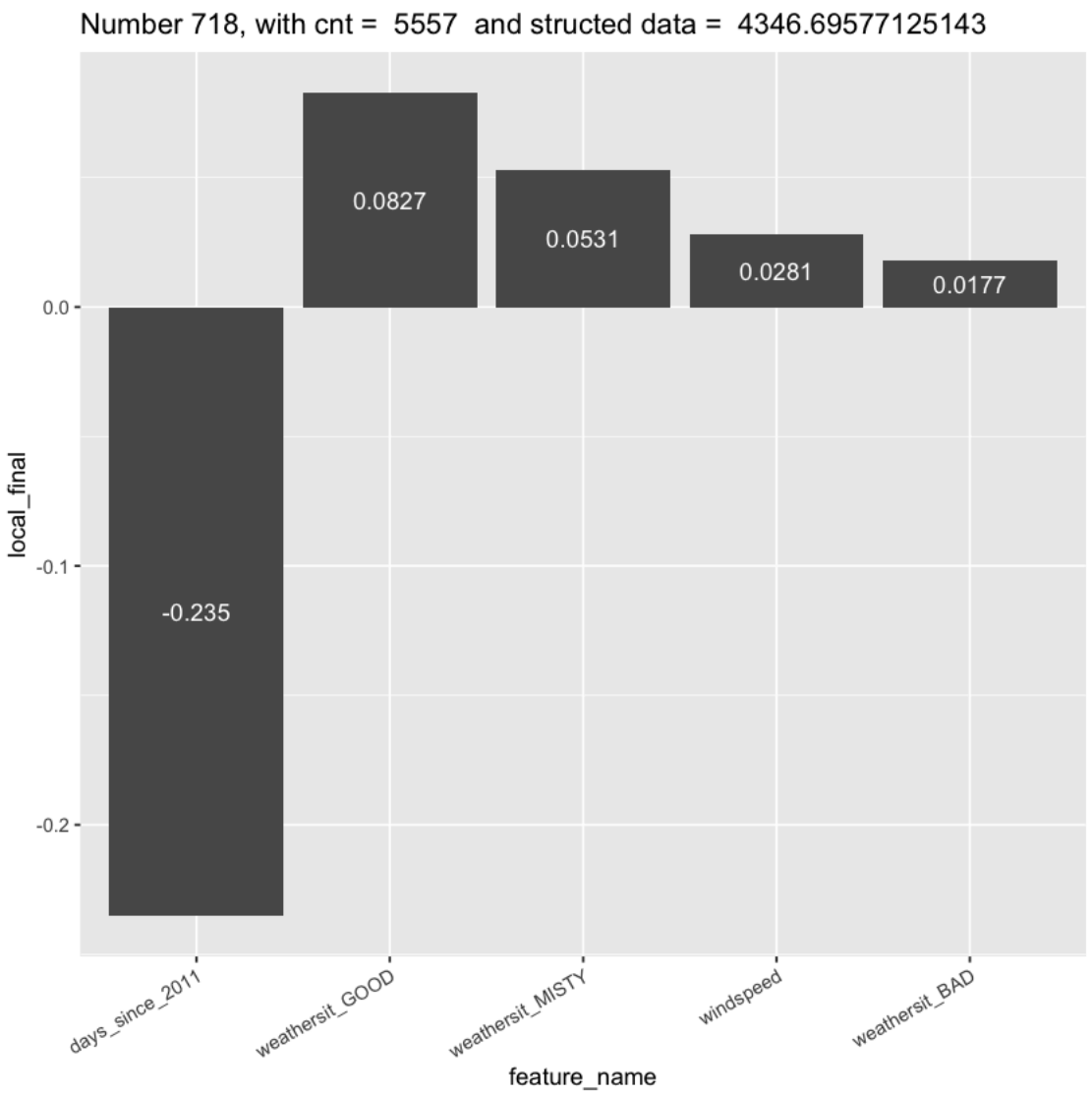

Number 713, with cnt = 5532 and structed data = 5110.63599674915
0.05
0.00
-0.05
-0.10
-0.15
local_final
0.0827
0.0652
0.0561
0.0531
-0.1583
days_since_2011
weathersit_GOOD
windspeed
hum
weathersit_MISTY
feature_name

0.8

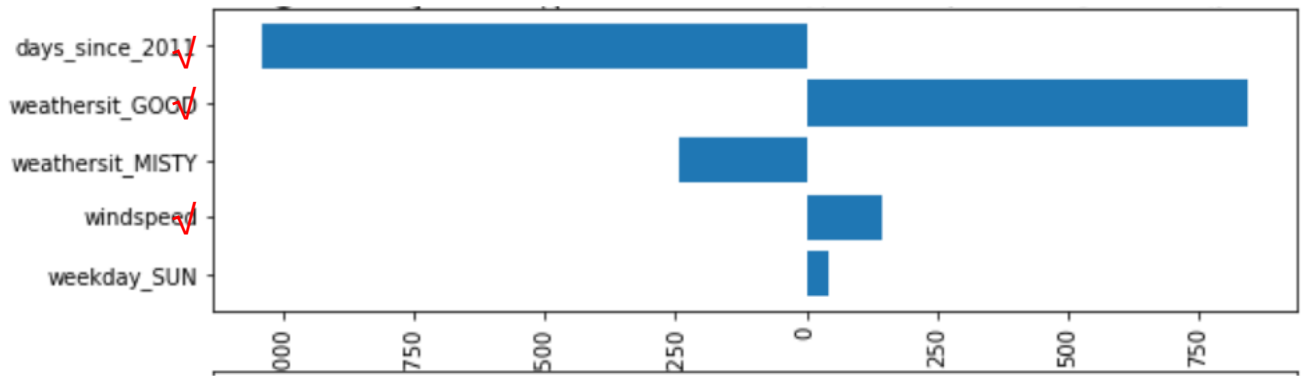

weathersit_GOOD
days_since_2011
windspeed
hum
weathersit_MISTY
600
400
200
0
200
400
600
800

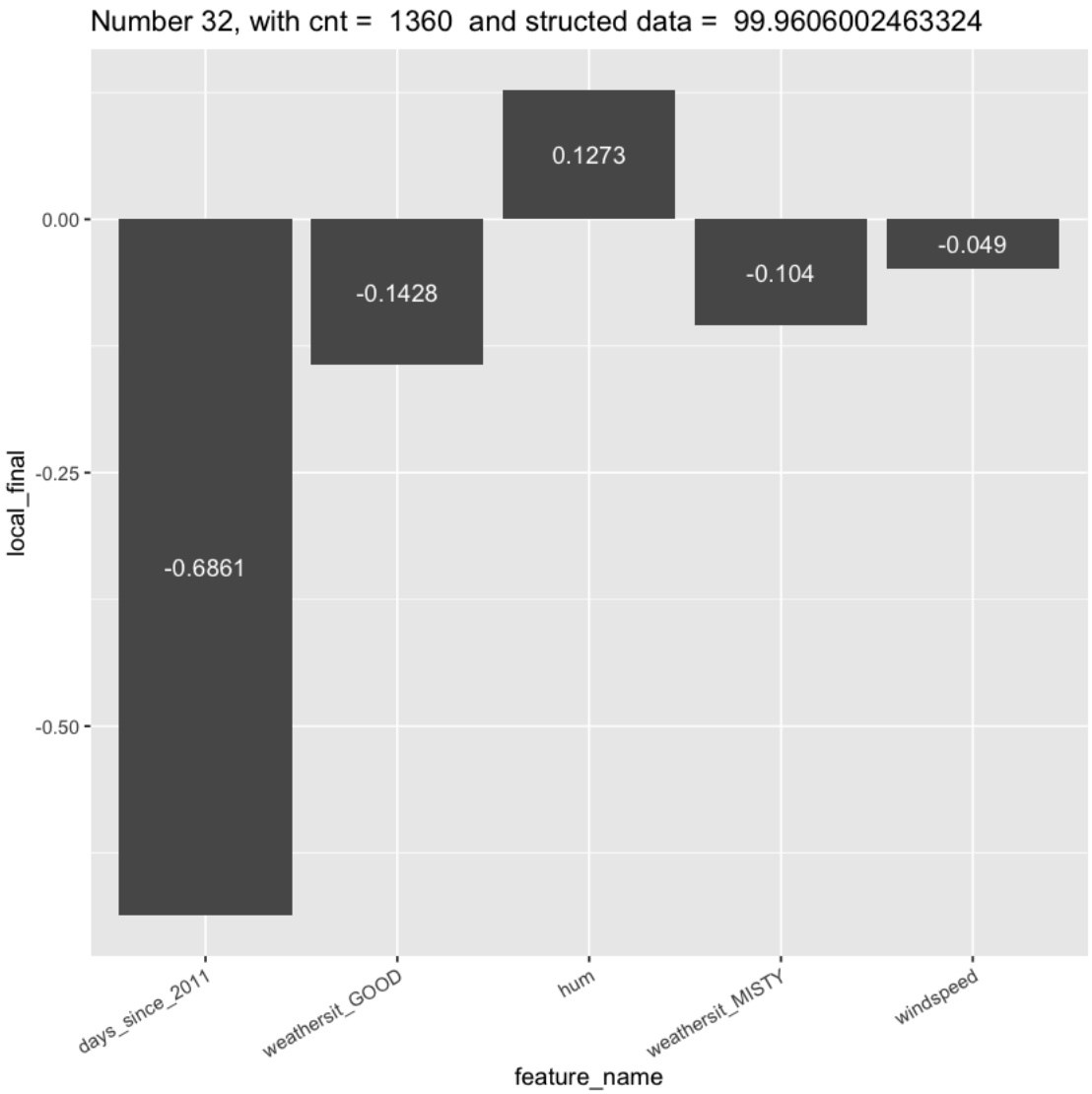

Number 114, with cnt = 4191 and structed data = 1723.3974792115
0.00
-0.05
-0.10
-0.15
-0.20
local_final
-0.2261
-0.1428
-0.1357
-0.104
-0.0678
days_since_2011
weathersit_GOOD
hum
weathersit_MISTY
windspeed
feature_name

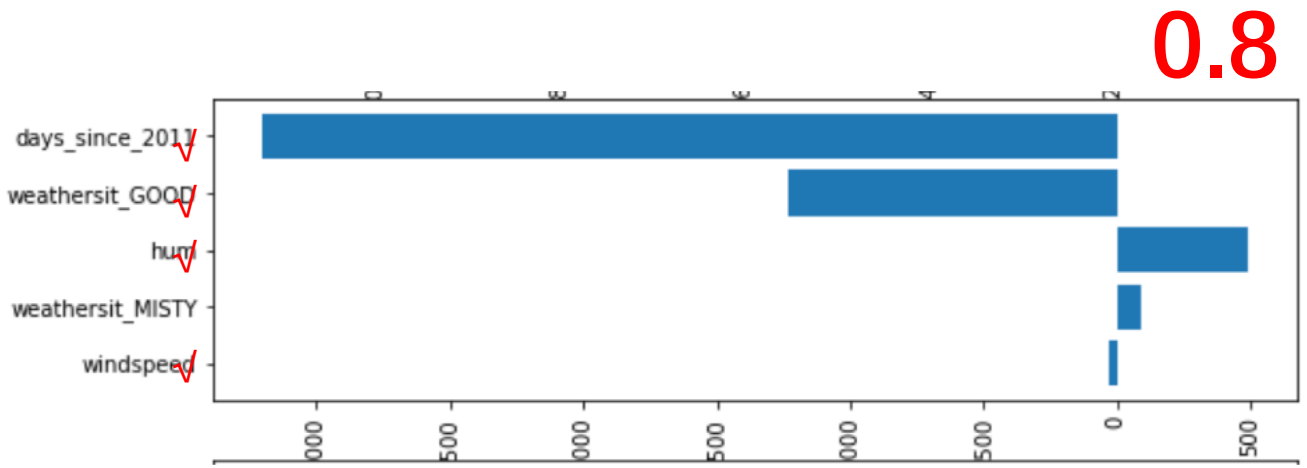

0.8
days_since_2011
weathersit_GOOD
hum
windspeed
weekday_SUN

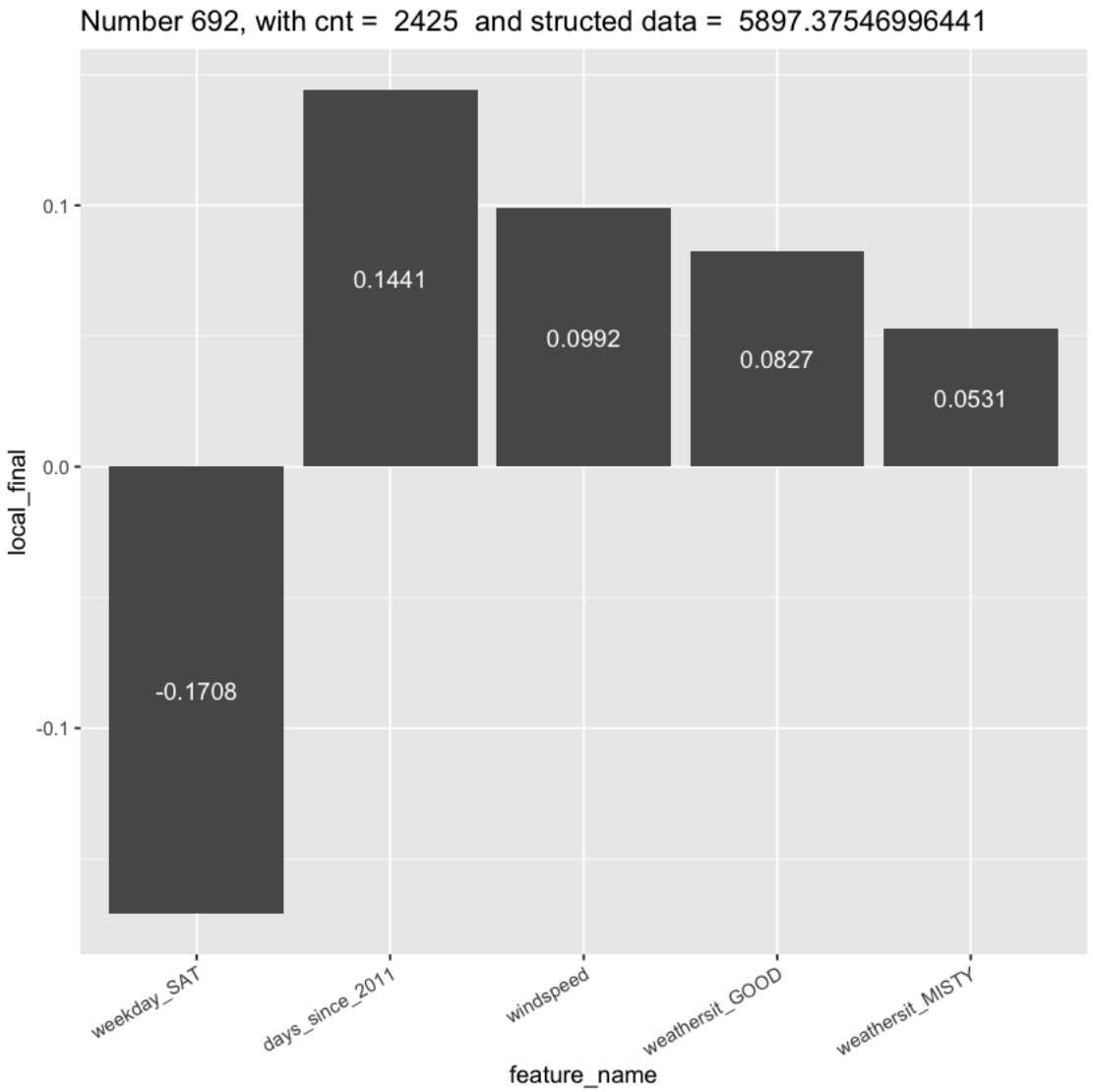

Number 718, with cnt = 5557 and structed data = 4346.69577125143
0.0827
0.0531
0.0281
0.0177
-0.235
0.0
-0.1
-0.2
local_final
days_since_2011
weathersit_GOOD
weathersit_MISTY
windspeed
weathersit_BAD
feature_name

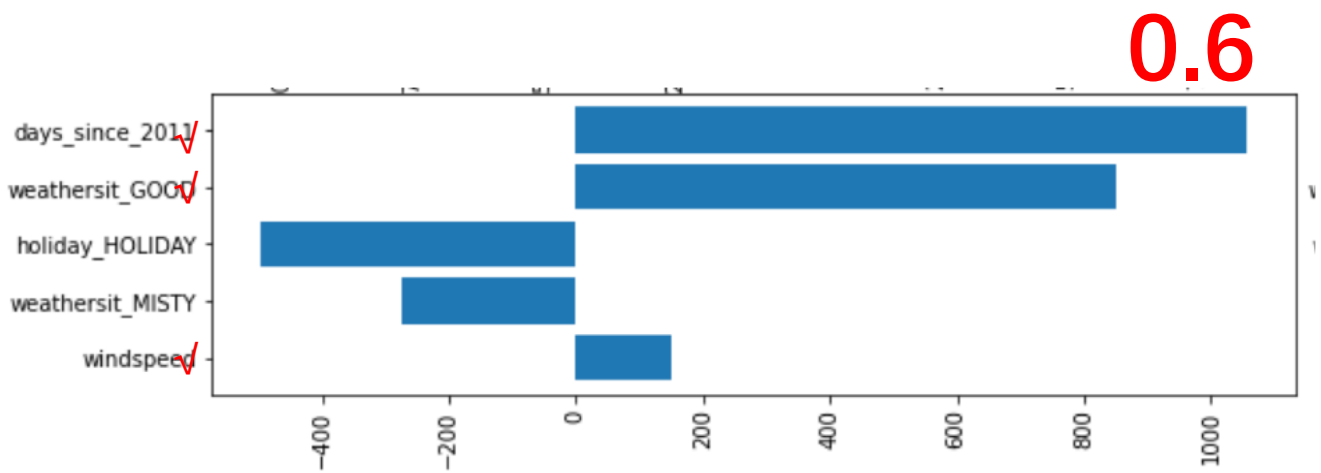
0.6

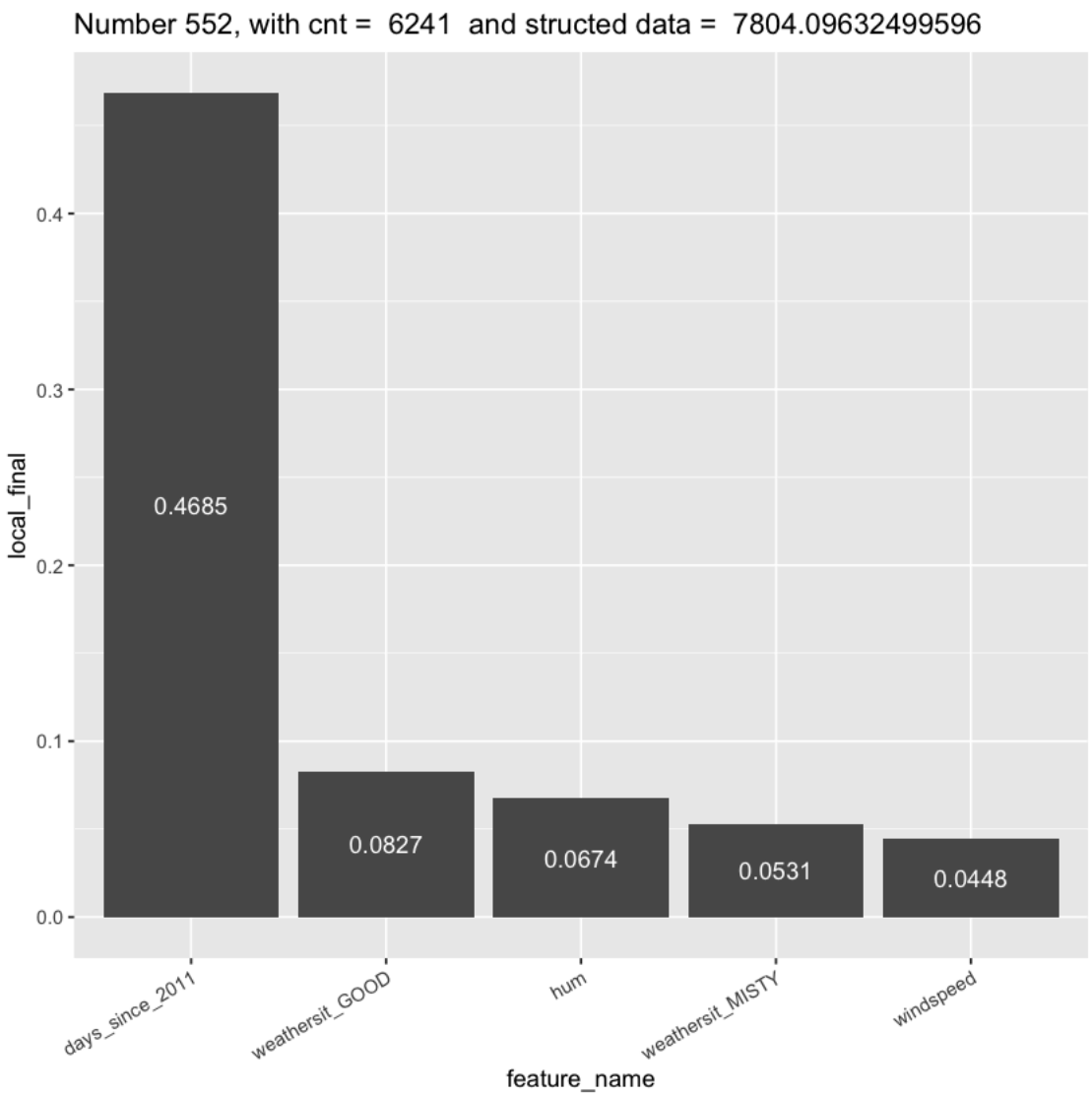

days_since_2011
weathersit_GOOD
weathersit_MISTY
windspeed
weekday_SUN
000
750
500
250
0
250
500
750

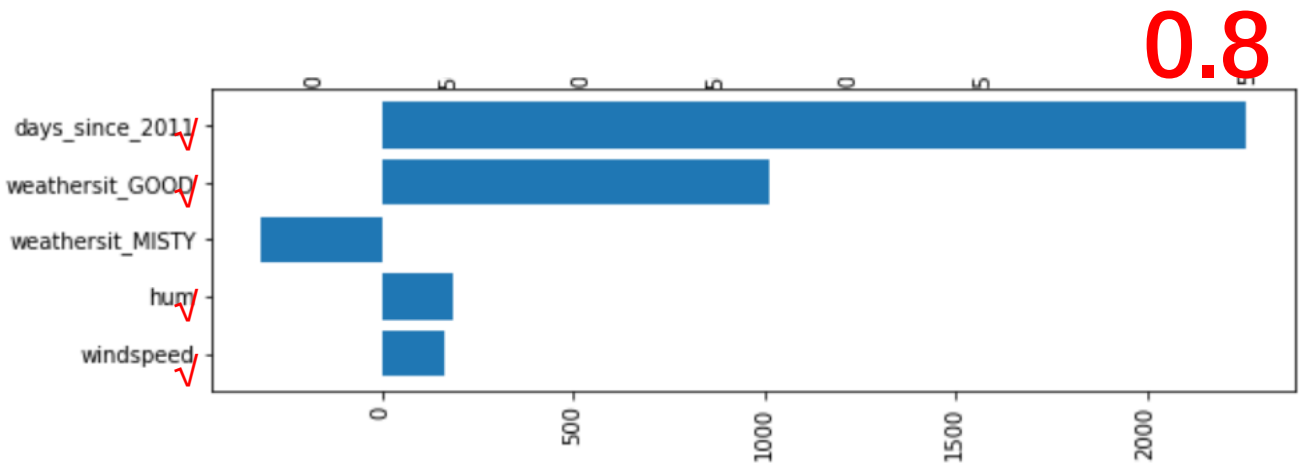

Number 32, with cnt = 1360 and structed data = 99.9606002463324
0.1273
-0.1428
-0.104
-0.049
-0.6861
0.00
-0.25
-0.50
local_final
days_since_2011
weathersit_GOOD
hum
weathersit_MISTY
windspeed
feature_name


0.8
days_since_2011
weathersit_GOOD
hum
weathersit_MISTY
windspeed


Number 692, with cnt = 2425 and structed data = 5897.37546996441
0.1
0.0
-0.1
local_final
0.1441
0.0992
0.0827
0.0531
-0.1708
weekday_SAT
days_since_2011
windspeed
weathersit_GOOD
weathersit_MISTY
feature_name


0.6
days_since_2011
weathersit_GOOD
holiday_HOLIDAY
weathersit_MISTY
windspeed
−400
−200
0
200
400
600
800
1000





0.8

average = 0.74

Global Explanation

Table 1. Results made by GAM

column_name		count
<chr>		<dbl>
weathersit_GOOD	√	731
weathersit_MISTY	√	706
days_since_2011	√	693
windspeed	√	603
hum	√	486
weathersit_BAD		126
holiday_HOLIDAY		99
weekday_THU		66
weekday_WED		63
weekday_SUN		61
weekday_SAT		21
weekday_MON		0
weekday_TUE		0
weekday_FRI		0

Table 2. Results given by SHAP

column_name		count
weathersit_GOOD	√	731
days_since_2011	√	692
weathersit_MISTY	√	673
windspeed	√	653
hum	√	621
weekday_SUN		124
weekday_MON		58
weekday_FRI		45
weekday_THU		34
holiday_HOLIDAY		21
weathersit_BAD		2
weekday_SAT		1
weekday_TUE		0
weekday_WED		0