

# Modeling Price and Popularity of AirBnB listings in New-York

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## Results - Random Forest Price

	Predictors	Variable.Importance
1	longitude	978.10
2	proximity_metro	231.64
3	reviews_per_month	107.88
4	listing_sentiment	101.15
5	number_of_reviews	100.73
6	neighbourhood_group	95.16
7	latitude	94.24
8	room_type	90.71
9	name_listing_length	89.26
10	minimum_nights	88.53
11	popularity_log	61.00
12	name_host_special	53.69
13	proximity_attraction	47.78
14	name_host_freq	39.16
15	listing_count	16.42

## Results - Random Forest Popularity

	Predictors	Variable.Importance
1	latitude	62.77
2	listing_sentiment	59.50
3	minimum_nights	57.85
4	neighbourhood_group	54.93
5	room_type	50.03
6	reviews_per_month	49.69
7	longitude	45.87
8	name_listing_length	41.50
9	name_host_special	35.34
10	popularity_log	33.77
11	proximity_attraction	20.73
12	listing_count	8.76
13	name_host_freq	8.72
14	proximity_metro	0.42

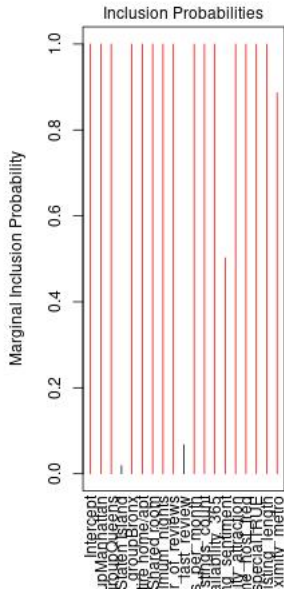
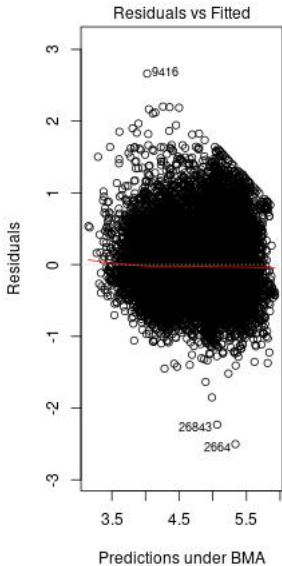
## Results - BMA Price

	Predictors	Estimate	Lower.Confint	Upper.Confint	Significance
1	Intercept	4.70	4.70	4.71	*
2	Neighbourhood_group:Manhattan	0.17	0.15	0.18	*
3	Neighbourhood_group:Queens	-0.11	-0.13	-0.10	*
4	Neighbourhood_group:Staten Island	-0.00	0.00	0.00	
5	Neighbourhood_group:Bronx	-0.17	-0.20	-0.14	*
6	Room_type:Entire home/apt	0.74	0.73	0.75	*
7	Room_type:Shared room	-0.51	-0.54	-0.47	*
8	number of reviews	-0.01	-0.02	-0.01	*
9	last_review	-0.00	-0.00	-0.00	*
10	reviews_per_month	-0.00	-0.00	0.00	
11	calculated_host_listings_count	-0.01	-0.02	-0.01	*
12	availability_365	0.00	0.00	0.00	*
13	name_listing_sentiment	0.00	0.00	0.00	*
14	proximity_attraction	-0.01	-0.04	0.00	
15	name_host_freq	0.07	0.07	0.07	*
16	name_host_special:True	10.42	7.38	13.55	*
17	name_listing_length	0.06	0.04	0.08	*
18	type_stay:Long	0.00	0.00	0.00	*
19	proximity_metro	-0.00	-0.00	0.00	

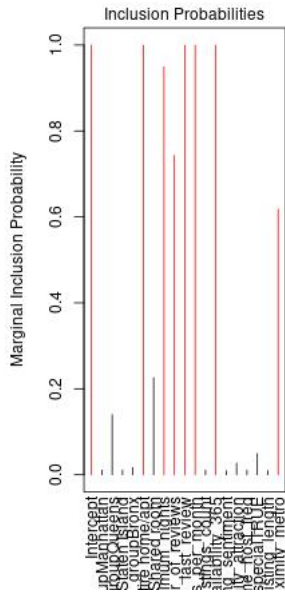
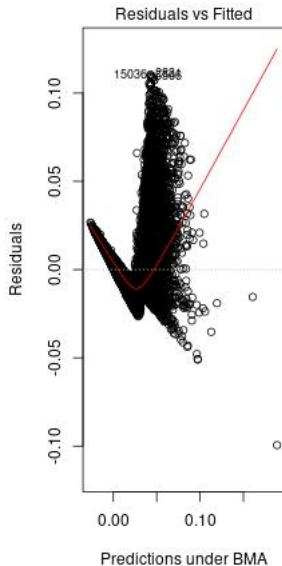
# Results - BMA Popularity

	Predictors	Estimate	Lower.Confint	Upper.Confint	Significance
1	Intercept	0.02	0.02	0.02	*
2	Neighbourhood_group:Manhattan	-0.00	0.00	0.00	
3	Neighbourhood_group:Queens	-0.00	-0.00	0.00	
4	Neighbourhood_group:Staten Island	0.00	0.00	0.00	
5	Neighbourhood_group:Bronx	0.00	0.00	0.00	
6	Room_type:Entire home/apt	-0.00	-0.00	-0.00	*
7	Room_type:Shared room	0.00	0.00	0.00	
8	number of reviews	-0.00	-0.00	0.00	
9	last_review	-0.00	-0.00	0.00	
10	reviews_per_month	0.00	0.00	0.00	*
11	calculated_host_listings_count	0.01	0.01	0.01	*
12	availability_365	0.00	0.00	0.00	
13	name_listing_sentiment	-0.00	-0.00	-0.00	*
14	proximity_attraction	-0.00	0.00	0.00	
15	name_host_freq	0.00	0.00	0.00	
16	name_host_special:True	-0.00	0.00	0.00	
17	name_listing_length	-0.00	0.00	0.00	
18	type_stay:Long	-0.00	0.00	0.00	
19	proximity_metro	0.00	0.00	0.00	

## Diagnostic Plots - BMA - Price



# Diagnostic Plots - BMA - Popularity



## Residuals - BMA

