Traffic Data Modelling

Quick Overview

date_time	weather_general	weather_detailed	clouds_coverage_pct	temperature	rain_mm	snow_mm	traffic
01.10.2014 00:00	Clear	sky is clear	1	11.5	0	0	508
01.10.2014 01:00	Clear	sky is clear	1	10.3	0	0	323
01.10.2014 02:00	Clear	sky is clear	1	8	0	0	274
01.10.2014 03:00	Clear	sky is clear	1	7.9	0	0	372
01.10.2014 04:00	Clear	sky is clear	1	6.4	0	0	812
01.10.2014 05:00	Clear	sky is clear	1	5.5	0	0	2720

Data Split
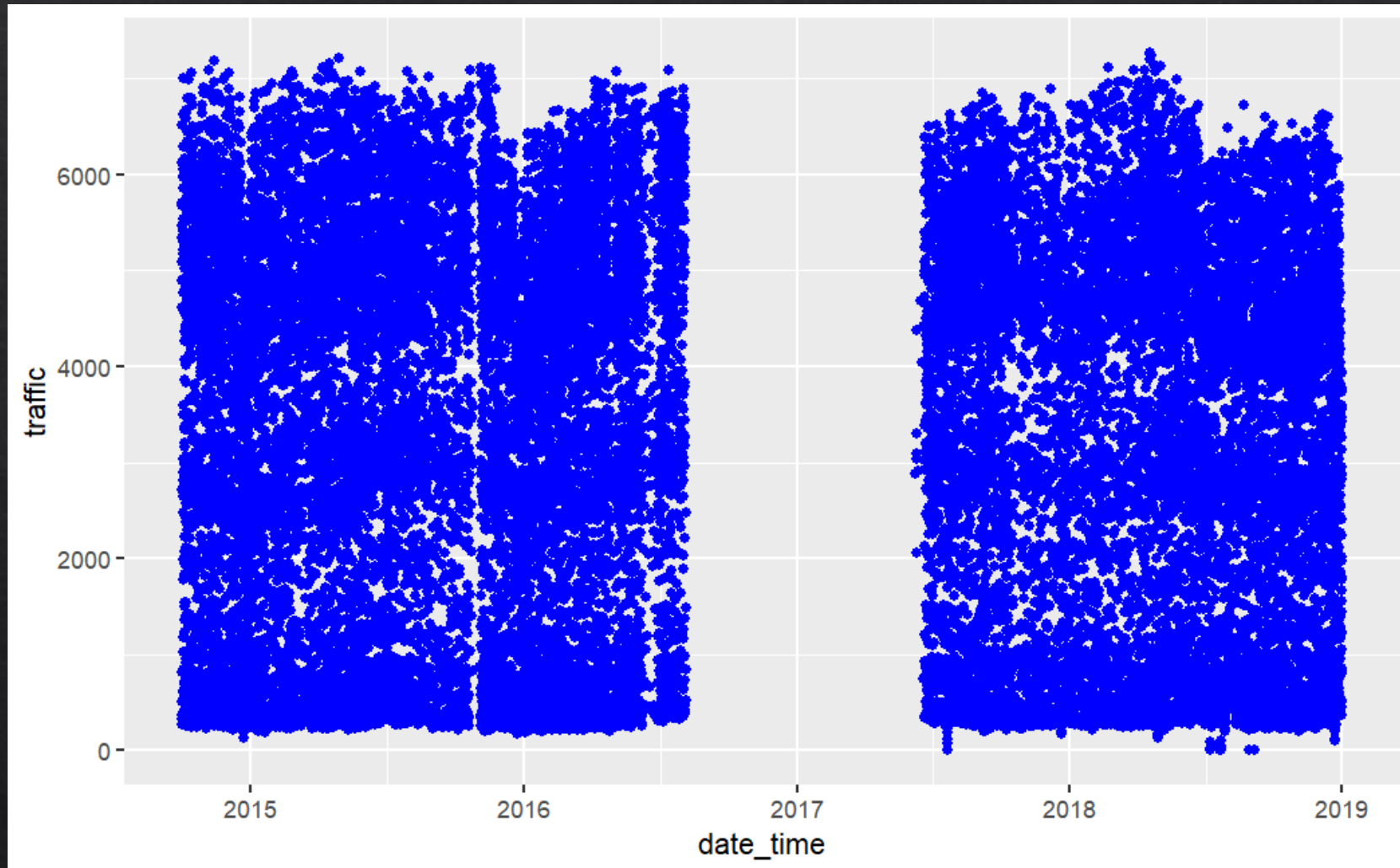
Data Split
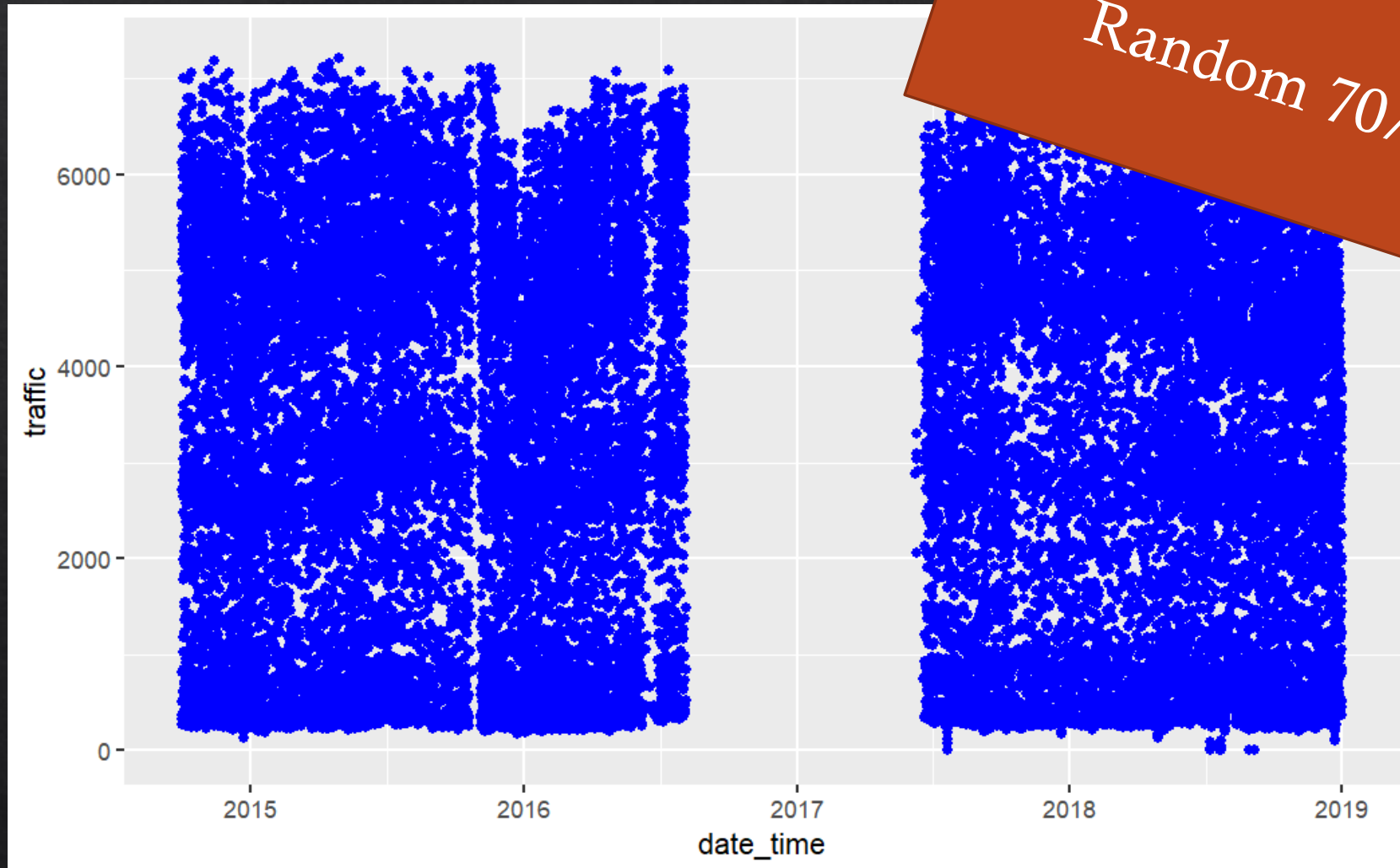
Random 70/30

Snow and Rain

as Near Zero Variance

Exclude them?

Select Model

	MSE	RMSE	MAE	MAPE	SMAPE	MedAE	MSLE	R2
traffic_lm1	979875.410446131	989.886564433588	667.925522180463	0.228083188537571	24.882987524907	425.47184935156	0.250192546939558	0.75299676536548
traffic_lm2	117598485.223746	10844.283527451	1857.50003420977	-1.24917750199369	85.6541337914026	1634.61770954113	NaN	0.0120050600698597
traffic_lm3	707991.849140989	841.422515232977	605.008184480452	0.327396620205148	35.3929693443638	453.063719584219	NaN	0.82131840172787
traffic_lm2_backward_AIC	5591126610.632055	23645.8582130583	2077.50756901701	-0.416610116781009	80.8648369563351	1585.75197175168	NaN	0.0040049252198199
traffic_elastic	5573194.65021534	2360.76145559337	634.711606185892	-0.443094723610334	35.5087716680741	463.029072567359	NaN	0.3191878705871195
traffic_train_knn5	2429758.46711345	1558.76825317731	1205.23620462457	0.46444851592986	48.7466695178766	946.6	0.714195736070102	0.3888289637519163
traffic_train_knn145	3399197.097925	1843.6911612103	1596.3170299159	0.515387745254067	60.5996955970509	1595.44263925729	1.01511200023767	0.155528609305844
traffic_train_knn_tuned	2451212.84199117	1565.63496447645	1229.38010916306	0.459462816842685	49.6867074359619	1003.35714285714	0.731436847424512	0.381865233704617

Traffic ~ clouds, temperature, month, hour, weekday

	MSE							
traffic_lm1	979875.410446131	989.886564433588	667.925522180463	0.228083188537571	24.882987524907	425.47184935156	0.250192546939558	0.75299676536548
traffic_lm2	117598485.223746	10844.283527451	1857.50003420977	-1.24917750199369	85.6541337914026	1634.61770954113	NaN	0.0120050600698597
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traffic_elastic	5573194.65021534	2360.76145559337	634.711606185892	-0.443094723610334	35.5087716680741	463.029072567359	NaN	0.319187870587195
traffic_train_knn5	2429758.46711345	1558.76825317731	1205.23620462457	0.46444851592986	48.7466695178766	946.6	0.714195736070102	0.388289637519163
traffic_train_knn145	3399197.097925	1843.6911612103	1596.3170299159	0.515387745254067	60.5996955970509	1595.44263925729	1.01511200023767	0.155528609305844
traffic_train_knn_tuned	2451212.84199117	1565.63496447645	1229.38010916306	0.459462816842685	49.6867074359619	1003.35714285714	0.73143684742452	0.381865233704617

Expected MAPE

0.3273