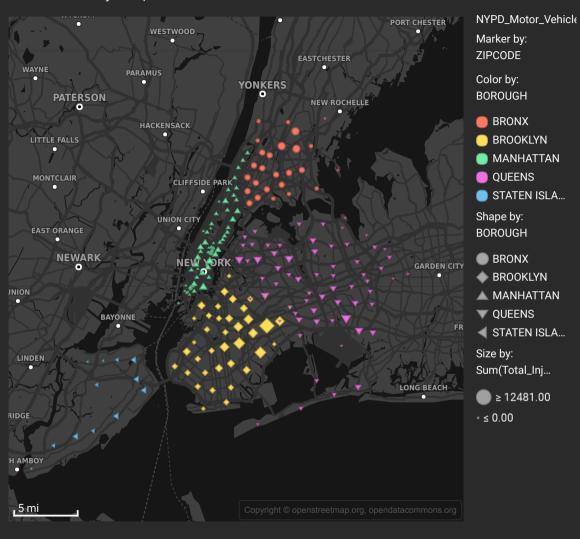
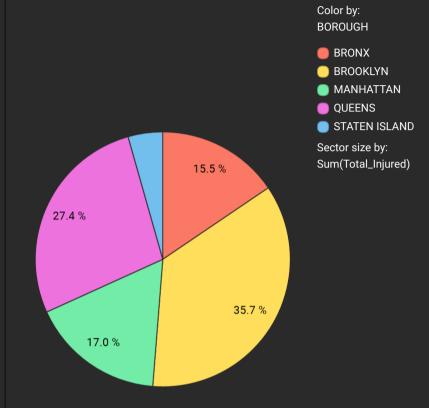
Accident Prone Zipcodes

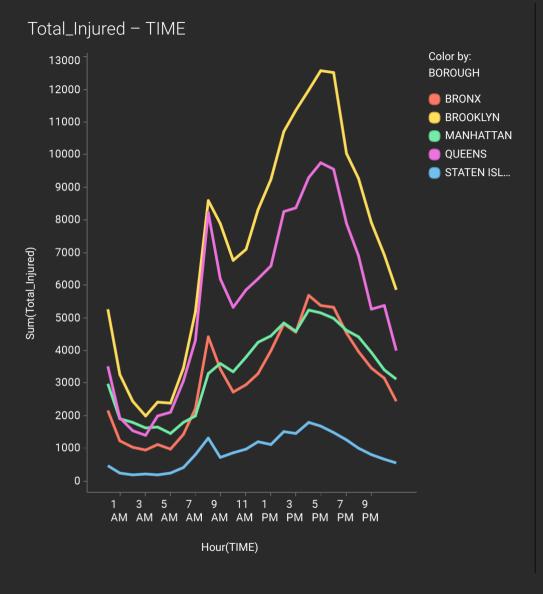
NewYork City Map



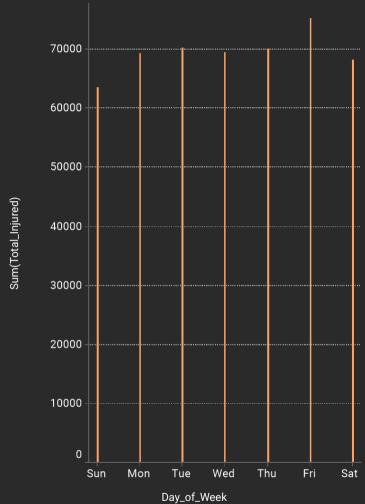
Total Injured



Day and Time



Total_Injured per Day_of_Week



Contributing Factors

Most Contributing Factors

Driver Inattention/DistractionUnspecifi ed	UnspecifiedUnspecifi edUnspecified	Following Too CloselyUnspecified			Fat	Fatigued/DrowsyUn specified				Traffic Control DisregardedUnspe cified				Physical DisabilityUnsp ecified		
		UnspecifiedUn specifiedUnspe cifiedUnspecifi ed		pe straction ecifiedl		river ntion/Di ionUnsp IUnspeci ied		Backing Unsafely		Turning Improperly Unspecified		y I	Alcoho Involve entUns cified		em Medicati	
		Other Vehicular to Yie Other Right		eld C	Traffio ontro		raffi ontro		nsaf .ane.		Other ehic		ew str	Follo		Pave nen
Failure to Yield Right-of- WayUnspecified	Failure to Yield Right- of-Way	Vehicular Passenge	of-Wa	1 Tr	raffic ont	Fati	_	Drive Inex	1 (-	lare	Driver	- 1	rake De	Phy cal.		lcoh I In
		r Distractio	Cons	ci Pe	ede ria	Agg ess.	r Ag	ggr L	Jns	Rea cti		Pre sc	1	Uns af		
		Driver Inexperie nceUnsp	Unsp ifiedL	Jn AI	lcoh In	Ot	D	\vdash	D P F		Г Т U III	Fa O	Br O	Tu [_ O	Or A	I Fa P D
			speci. Other	I Dr	river	III P	В		Γr <u>P</u>	T	FAL	J F	B F	F	F P	D T
		Passenge r	Vehic	:ul '''	utsi	Fa	R	Fo				T				
Driver Inattention/Distraction		Distracti Pave		m d	le	Fa	F	Dr	D O							
		Yield Right-of	ent Slippe	e OI	iew bs	Gl	A	\vdash	O D							
		Backing UnsafelyU nspecified	Pede rian/l cyclis	Bi ue	atig ed hysi	Tu Fe	D	Fa	0 0 D	-						
		Passing or Lane	Unsa Spee	fe C	al utsi	P	D	Fo -	<u> </u>							
		Usage I	Unsp		le	Dr	F	Ра								

Color by: (Row Count)

Max (86514)

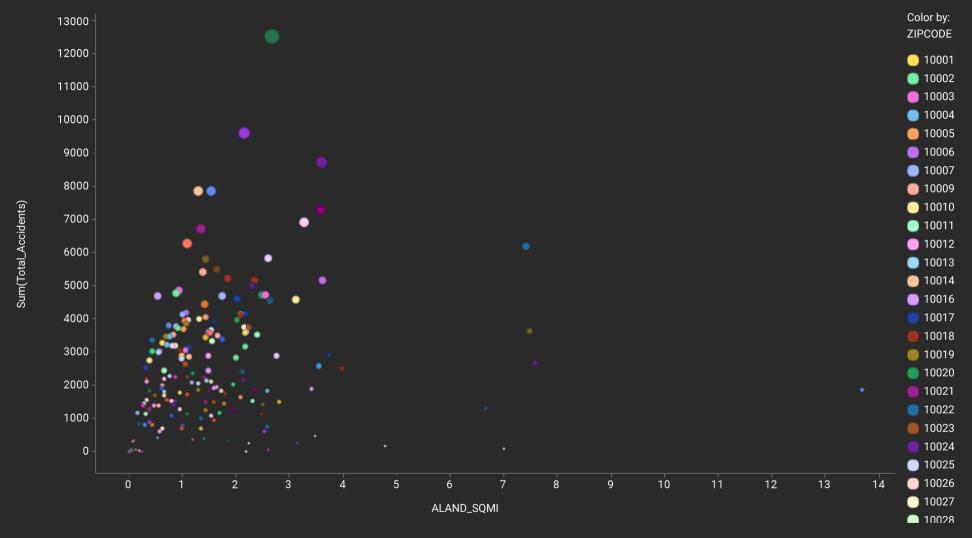
Min (1)

Size by: Sum(Total_Injured)

Hierarchy: Contributing_Factors

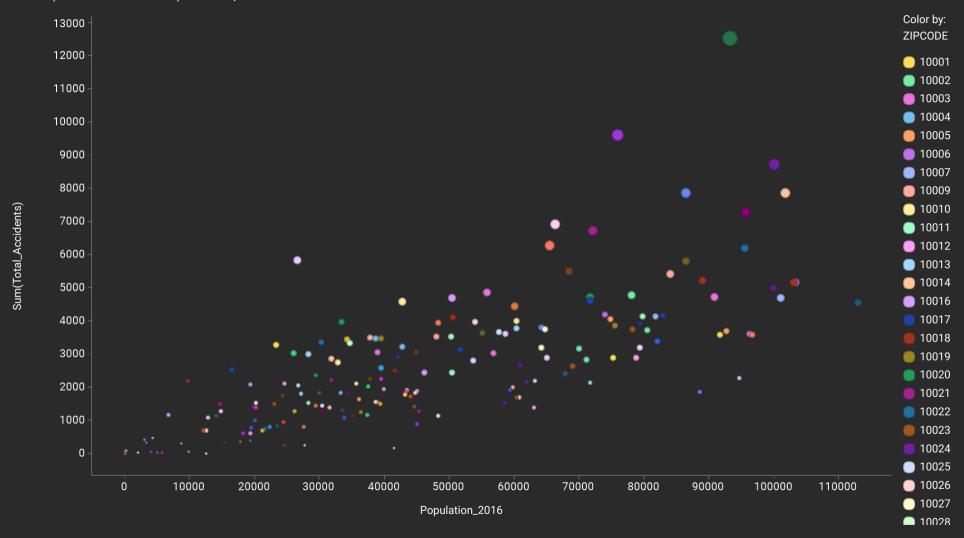
Area-Accident Correlation



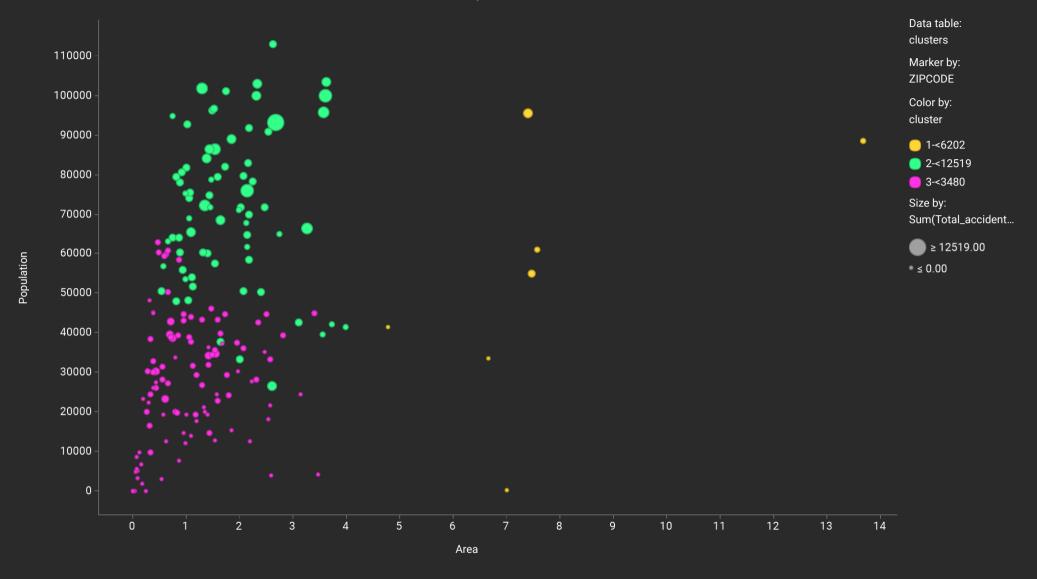


Population-Accidents Correlation

Sum(Total_Accidents) vs. Population_2016

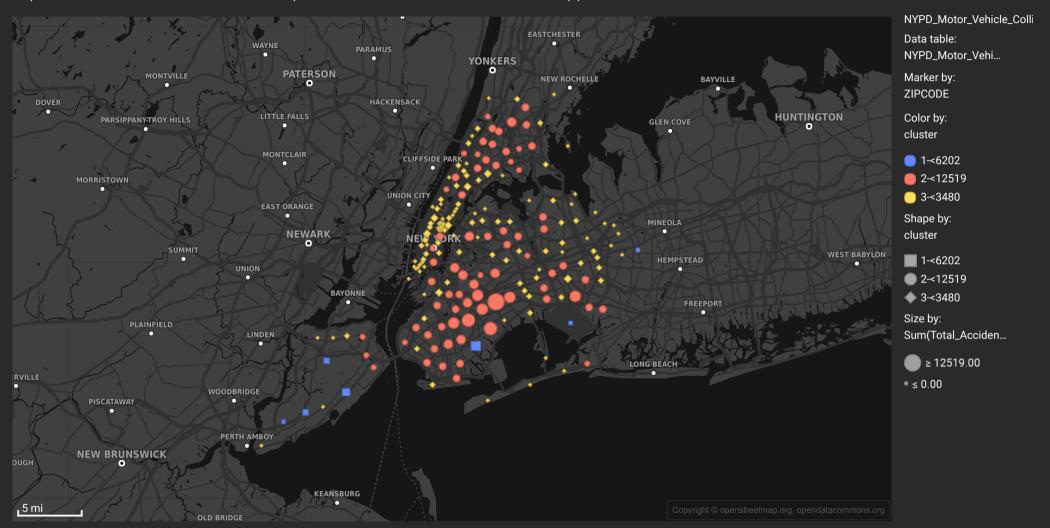


Zipcode Clusters



Zipcode clusters Mapped

Zipcodes Similar in terms of Area, Population and Total Accidents are mapped



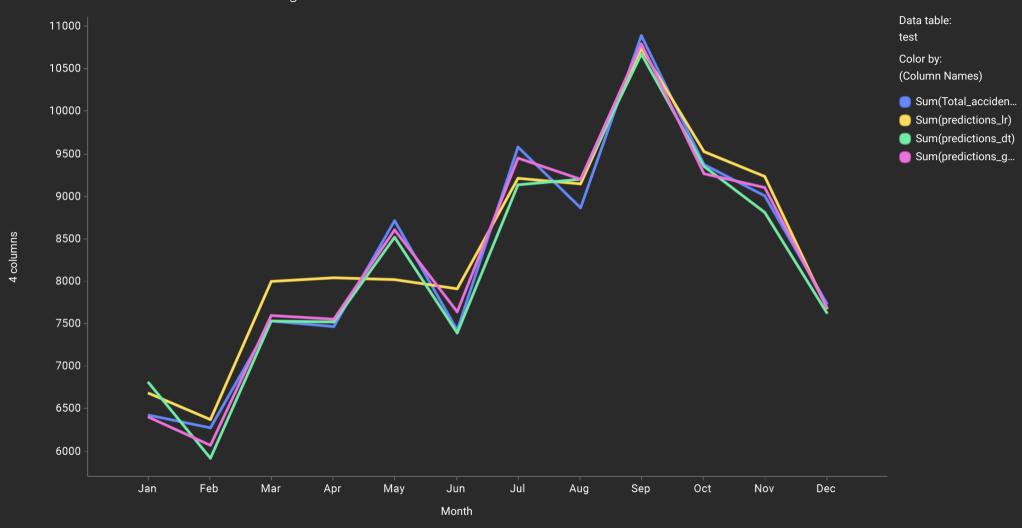
Selected Detail Data for analysis

6 columns from NYPD_Motor_Vehicle_Collisions

Year	Month	cluster	Population_2	ALAND_SQMI	Total_Accide
2012	Jul	3-<3480	25987	0.44	0
2012	Jul	2-<12519	79730	2.07	0
2012	Jul	2-<12519	69965	2.18	0
2012	Jul	2-<12519	48289	1.03	0
2012	Jul	1-<6202	95546	7.41	0
2012	Jul	2-<12519	71159	1.99	0
2012	Jul	2-<12519	72159	1.35	0
2012	Jul	3-<3480	6740	0.16	2
2012	Jul	3-<3480	16533	0.32	2
2012	Jul	2-<12519	101006	1.75	2
2012	Jul	3-<3480	30262	0.43	0
2012	Jul	3-<3480	27144	0.66	0
2012	Jul	2-<12519	66279	3.27	0
2012	Jul	3-<3480	25987	0.44	0
2012	Jul	3-<3480	37461	1.95	0
2012	Jul	3-<3480	3928	2.60	0
2012	Jul	2-<12519	78096	0.88	0
2012	Jul	3-<3480	44617	2.50	2
2012	Jul	2-<12519	79411	0.81	0
2012	Jul	3-<3480	28247	2.31	0
2012	Jul	3-<3480	28247	2.31	0
2012	Jul	3-<3480	30262	0.43	0
2012	Jul	3-<3480	28211	0.55	0
2012	Jul	2-<12519	64109	0.74	0
2012	Jul	2-<12519	82028	1.74	2
2012	Jul	2-<12519	55816	0.94	0
2012	Jul	3-<3480	37461	1.95	0
2012	Jul	2-<12519	82914	2.16	0
0040		1 1000	25514	7	^

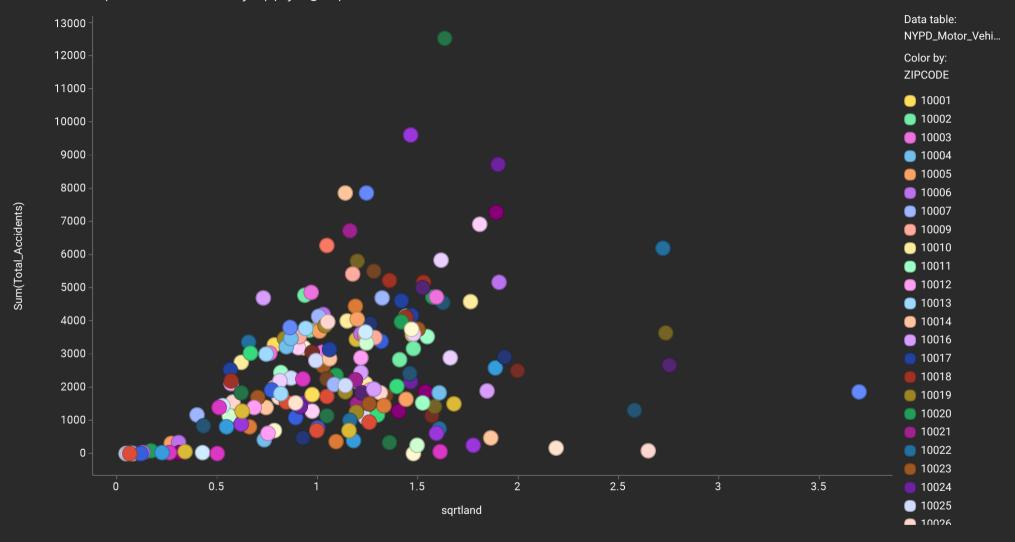
Predicting Number of Accidents - ML Model Performance

ML Models Performance in Predicting Number of Accidents



SQRT(Area)-Accidents

When we squeeze land area by applying sqrt, relation becomes more linear with .43 correlation



Traffic - Accident Correlation

