



CAR ACCIDENT SEREVITY

E.R.

FEATURE SELECTION

Severity_code

Code	Number
1	111498
2	54711

Ped_count

Code	Number
0	159619
1	6342
2	220
3	22
4	4
5	1
6	1

Adress_type

Code	Number
1 – Alley	0
2 – Block	105243
3 - Intersection	60966

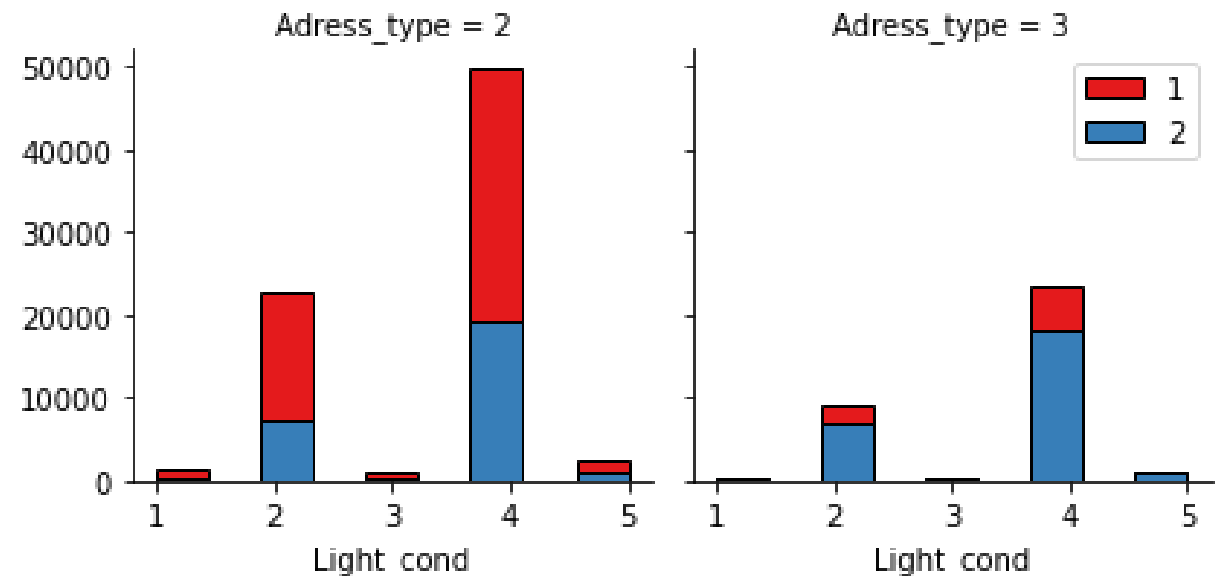
Ped_cycl_count

Code	Number
0	160953
1	5214
2	42

CASES CONSIDERING LIGHT CONDITIONS (LIGHT_COND) ONLY

1 - Dark - No Street Lights / Street Lights Off
2 - Dark - Street Lights On
3 - Dawn
4 - Daylight
5 - Dusk

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4      110315  
2       45621  
5        5532  
1        2404  
3         2337  
Name: Light_cond, dtype: int64
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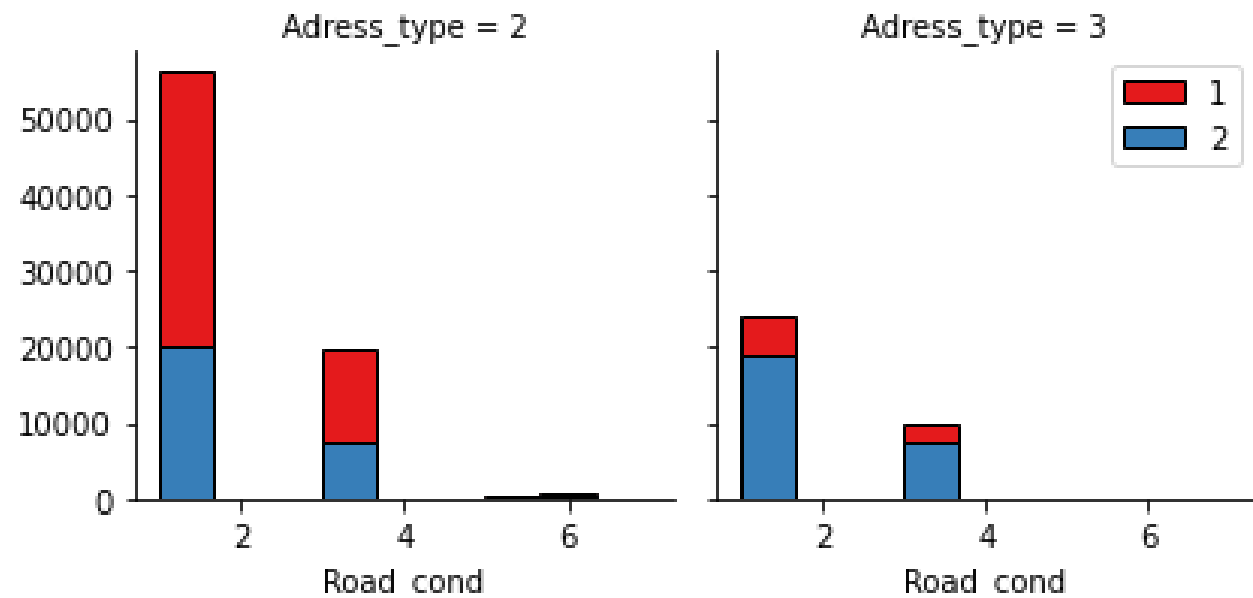


CASES CONSIDERING ROAD CONDITIONS (ROAD_COND) ONLY

1 - Dry
2 - Sand/Mud/Dirt
3 - Wet
4 - Standing Water
5 - Snow/Slush
6 - Ice
7 - Oil

1 119164
3 44970
6 1055
5 821
4 94
2 56
7 49

Name: Road_cond, dtype: int64

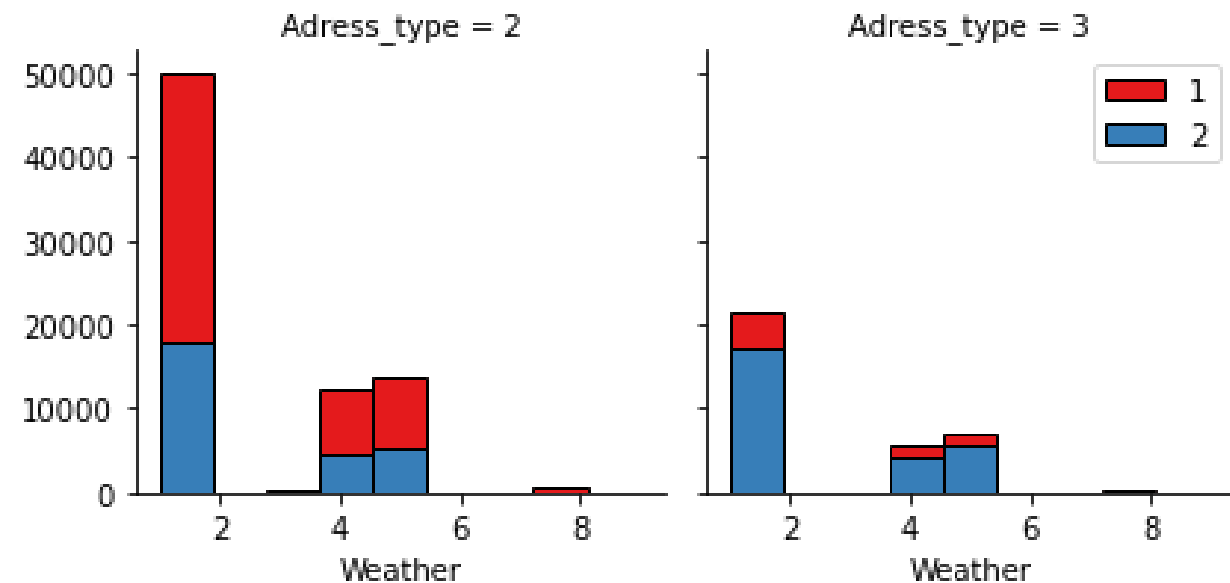


CASES CONSIDERING WEATHER CONDITIONS (WEATHER) ONLY

1 - Clear
2 - Partly Cloudy
3 - Fog/Smog/Smoke
4 - Overcast
5 - Raining
6 - Severe Crosswind
7 - Sleet/Hail/Freezing Rain
8 - Snowing
9 - Blowing Sand/Dirt

1 106749
5 31555
4 26378
8 813
3 537
7 106
9 42
6 24
2 5

Name: Weather, dtype: int64

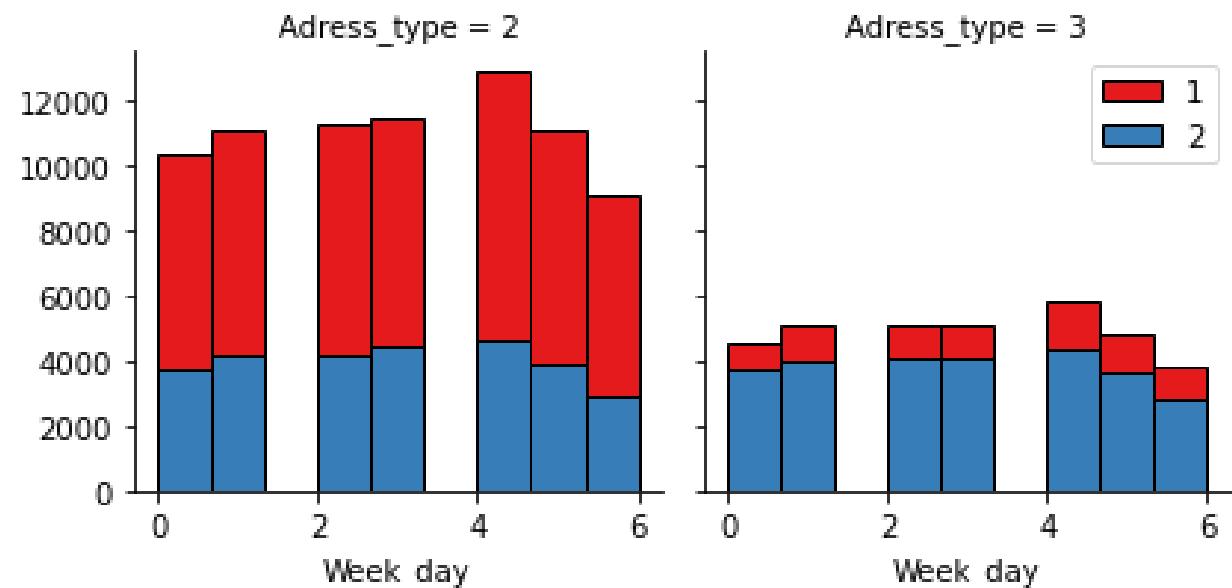


CASES CONSIDERING WEATHER CONDITIONS (WEATHER) ONLY

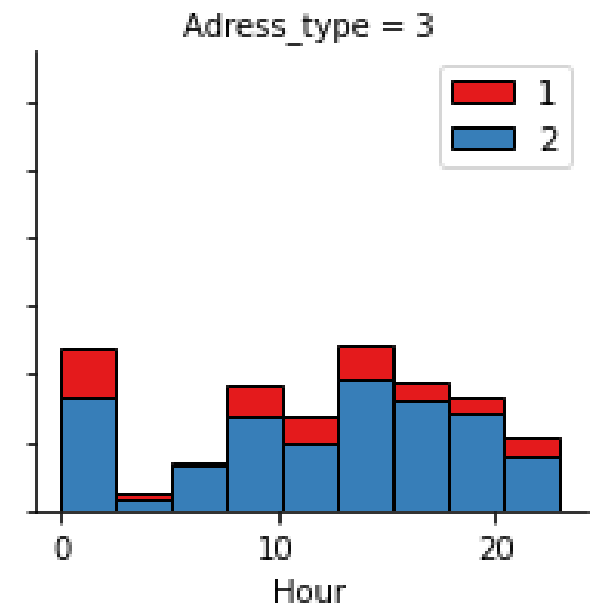
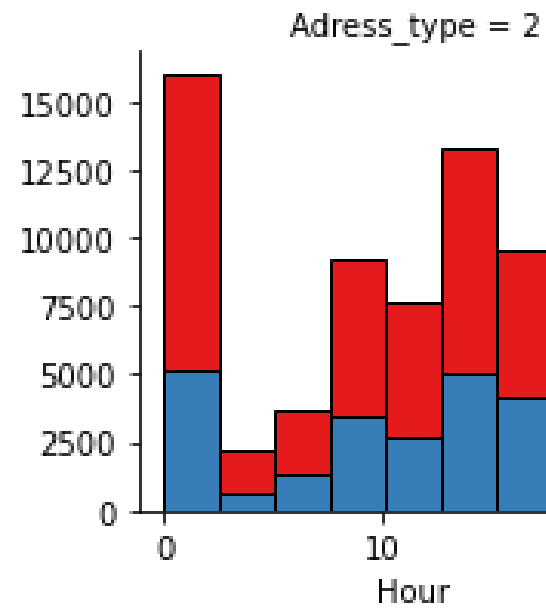
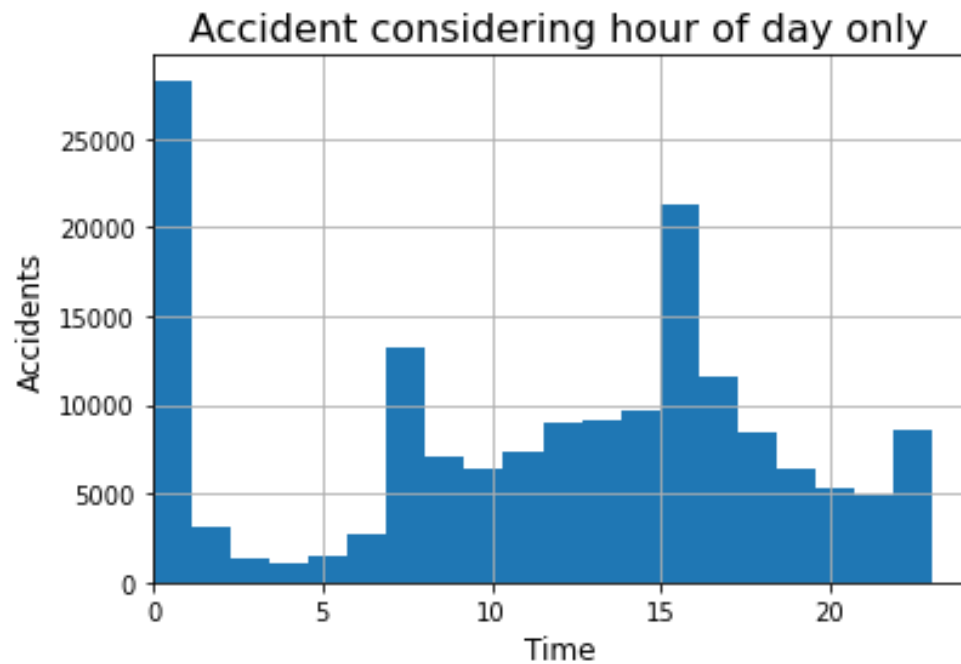
0 - Sunday
1 - Monday
2 - Tuesday
3 - Wednesday
4 - Thursday
5 - Friday
6 - Saturday

4 27640
3 25127
2 24624
1 24392
5 23477
0 22341
6 18608

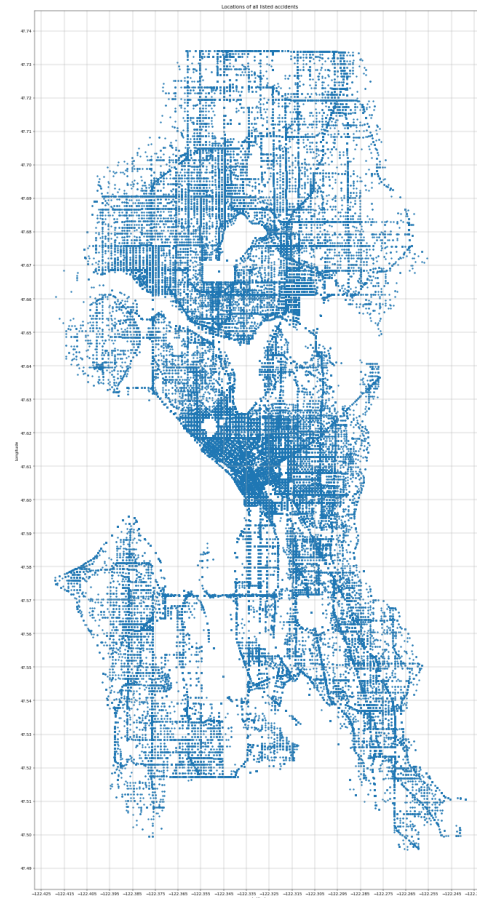
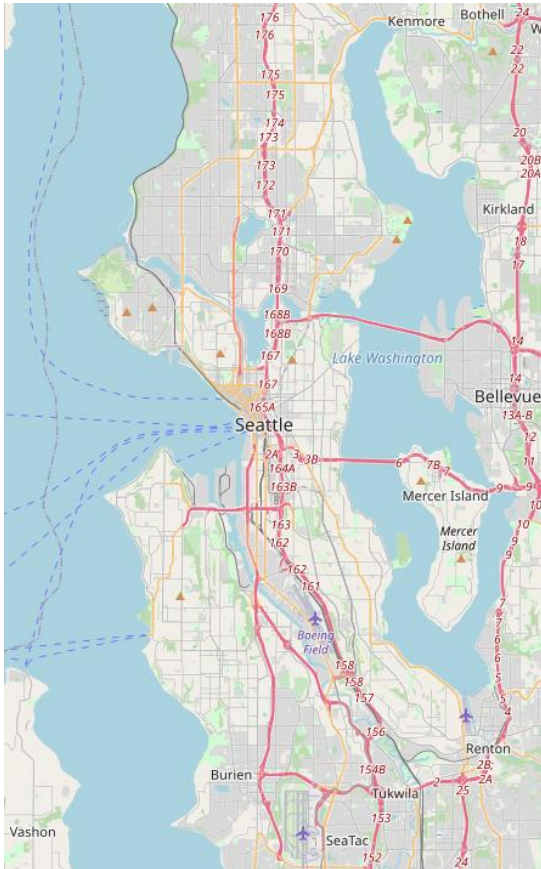
Name: Week_day, dtype: int64



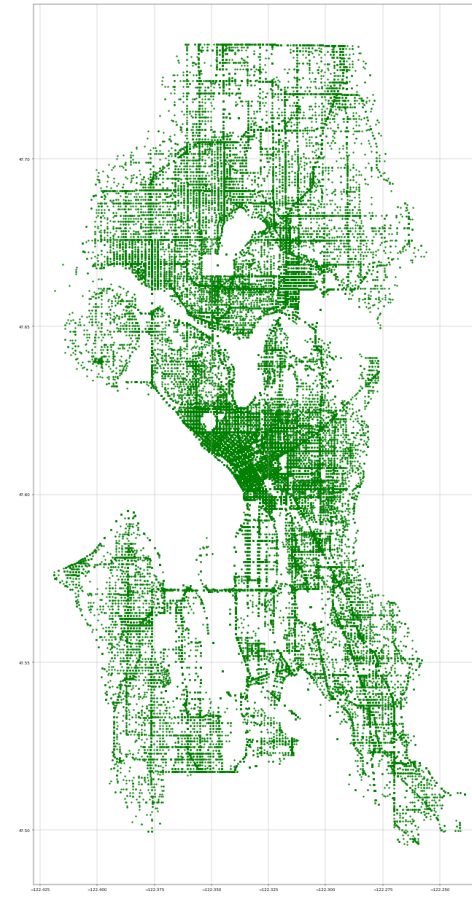
CASES CONSIDERING TIME/HOUR ONLY



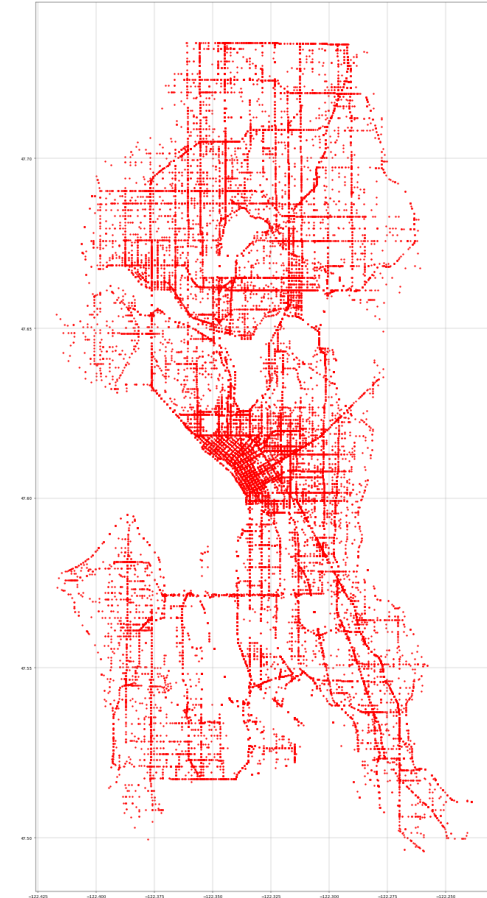
VISUALIZATION



Locations of all listed
accidents

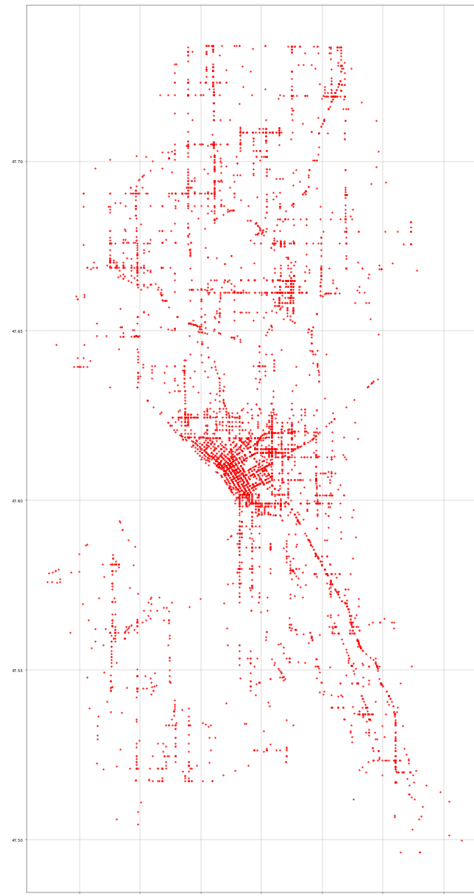
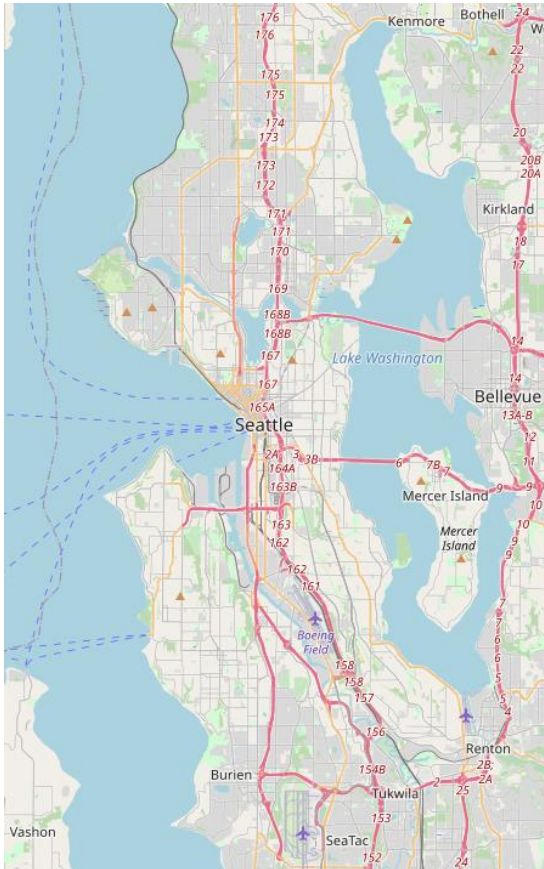


Locations of all accidents
with prop damage

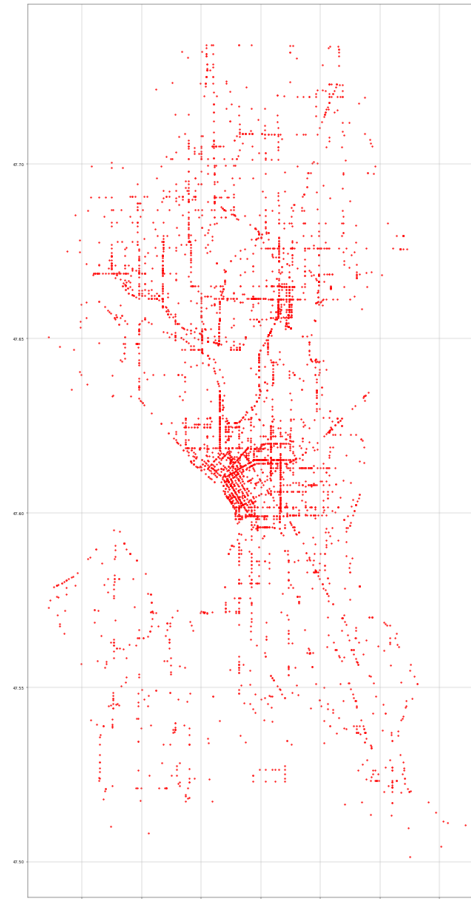


Locations of all accidents
with injuries

VISUALIZATION



Locations of all accidents
with pedestrians



Locations of all accidents
with bicycles

MACHINE LEARNING

ML-Model	Jaccard-score	F1-score	LogLoss
KNN	0.64	0.59	---
DT	0.67	0.54	---
SVM	0.67	0.54	0.62

SUMMARY

- two thirds of the accidents involved damage to property (1)
- One-third of the accidents is personal injury (2)
- No accidents on roads
- about two thirds of accidents occur in the city
- Approximately one third of accidents occur at road junctions
- Very few accidents involving passers-by (< 7,000)
- very few accidents involving cyclists (< 5,500)
- One-third of accidents occur in the dark with illuminated roads
- Two thirds of accidents happen during the day
- Three quarters of accidents occur on dry roads,
- One quarter of accidents occur on wet roads
- Three-fifths of accidents happen on a clear day
- Two-fifths of accidents occur under cloudy skies and rain
- The number of accidents increases slightly and continuously, starting with Sunday. The peak is reached on Thursday. Starting with Friday, the number of accidents falls drastically.
- In terms of individual days, most accidents occur at midnight, followed by 7 and 15 o'clock. After that, the number decreases again.