




Traffic Accident Severity

An Analysis of Traffic Data in Seattle



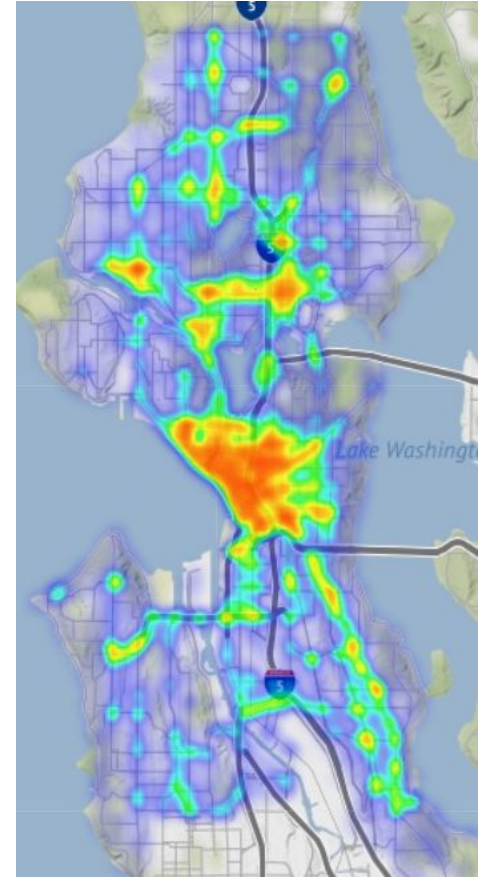
What causes accidents?

Look at the data!

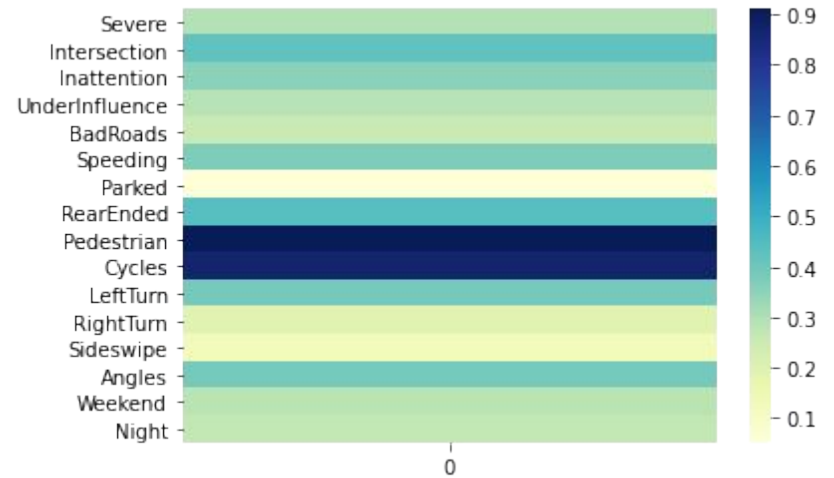
The Seattle PD offers a dataset of traffic accidents since 2004 which retains a large amount of values describing each accident

Accidents Heatmap

Where accidents occur in Seattle



What causes accidents??





Most Severe

- Pedestrians
- Cyclists

Little impact on severity

- Weekend
- Night
- Under Influence
- Bad Roads

Least Severe

- Parked cars
- Sideswipes

Severity Table

Severe	0.296124
Intersection	0.425093
Inattention	0.355531
UnderInfluence	0.292919
BadRoads	0.260070
Speeding	0.374644
Parked	0.051311
RearEnded	0.442862
Pedestrian	0.911280
Cycles	0.873000
LeftTurn	0.389182
RightTurn	0.196794
Sideswipe	0.128812
Angles	0.392545
Weekend	0.284108
Night	0.271765

Model:

Decision Tree Classification

Score: .75

Conclusion

- Pedestrian and cyclist involved accidents are the most severe.
- Parked car involved accidents are the least severe.
- A lot of factors have little effect on severity of the accident
- A decision tree model can be used to predict the severity of an accident.

