Predicting Accident Severity in Seattle using Weather, Road conditions and Light conditions.

E. T. Chipato

COURSERA

DATA SCIENCE CAPSTONE PROJECT PRESENTATION
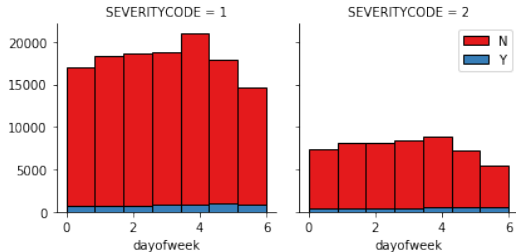06 September 2020

- Predict accident severity using Seattle Dataset
- Useful to divers- check odds of running in to problems
- Predictions can also assist emergency services
- Can target particular conditions

Data acquisition and cleaning

- Seattle SPOT Traffic Management Division
- Data updated weekly from 2004 to present
- Big Dataset (194673, 38)
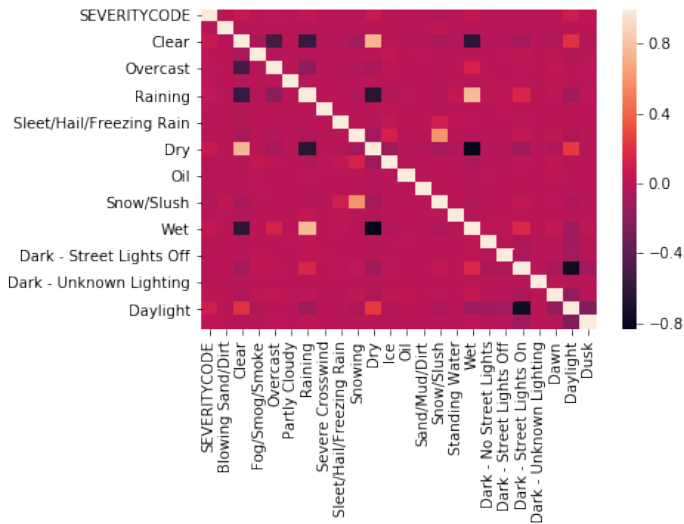- Null values deleted
- Other and Unknown removed

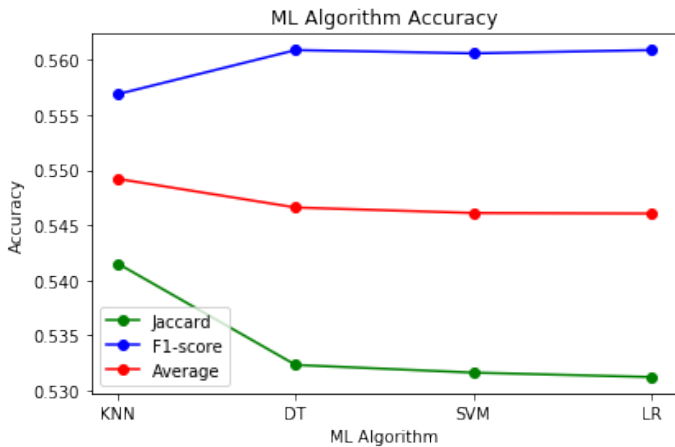# Effect of day of the week on accident occurrence

Data Preparation

- Balanced dataset-avoid skewness
- Feature Engineering
- One hot encoding
- 23 features
- Data standardization/ normalizing
- Train/ test split

Data understanding- Does it make sense

ML Algorithm Accuracy

- Accident severity predicted
- Weather, road and light conditions
- Four ML models
- All above 0.53
- KNN performed better-average