"ENHANCING TRAFFIC ACCIDENT CLASSIFICATION USING MACHINE LEARNING"

PROPOSAL

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Project Description

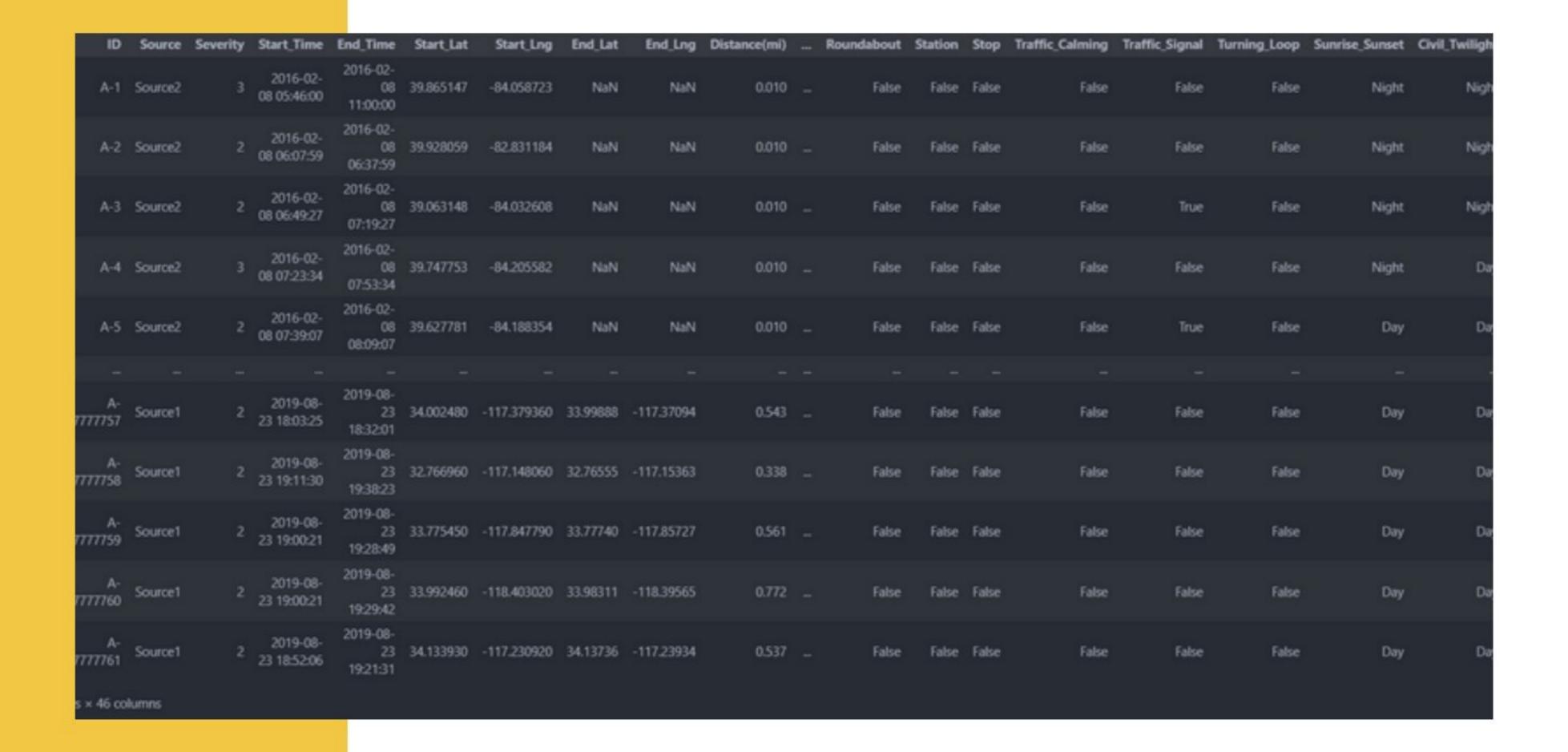


This project is based on a countrywide car accident dataset covering 49 states in the USA.

The accident data was collected from February 2016 to March 2023, using multiple APIs that provide streaming traffic incident data.

These APIs broadcast traffic data captured by various entities, including federal and state departments of transportation, law enforcement agencies,

traffic cameras, and traffic sensors within the road networks. The dataset currently contains approximately 7.7 million accident records.



Data Information:

Number of Rows: 7,728,394 rows

Number of Columns: 46 columns

Missing Data:

"End_Lat" column has a missing value percentage of approximately 44.03%.

"End_Lng" column has a missing value percentage of approximately 44.03%.

"Wind_Chill(F)" column has a missing value percentage of approximately 25.87%.

"Precipitation(in)" column has a missing value percentage of approximately 28.51%.

These percentages indicate the presence of some missing data in the dataset, which may require additional processing to ensure accurate analyses. This dataset can be used to enhance traffic accident management and improve emergency response.

GOALS & OBJECTIVE

OBJECTIVES 1

The primary goal of this project is to classify traffic accidents into four severity levels, using machine learning techniques

OBJECTIVES 2

Factor Analysis: Understand the factors contributing to accidents and their impact on accident severity.

OBJECTIVES 3

Predictive System Development: Develop models capable of predicting the impact of various factors on accidents.

THANK YOU, AND WE LOOK FORWARD TO WORKING WITH YOU.