

TEAM - 8

Wheels and Wrecks: Exploring Traffic Incidents Across 49 US States

Team Members:

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Description of the dataset:

This dataset contains seven years of vehicle accident data from all 49 U.S. states, collected between February 2016 and March 2023. It combines information from several sources, including governmental divisions, law enforcement organizations, traffic cameras, and road sensors, yielding over 7.7 million accident reports. (The dataset will be altered as needed to meet the project's requirements.)

Smart Questions for a Project Proposal:

1. Temporal Trends: How have accident rates and severity changed over the last seven years, emphasizing any notable temporal patterns?
2. Geographic Insights: Can we identify areas with a history of high accident rates? What factors influence these geographical patterns?
3. Weather Impact: What is the relationship between meteorological conditions (rain, snow, fog) and accident rates? Do specific states have a higher rate of weather-related accidents?
4. Contributing Factors: What are the fundamental causes of accidents, and can they be classified into specific categories such as distracted driving, speeding, or road conditions?
5. Predictive Modelling: Can we create predictive models that identify high-risk places and times for accidents, allowing us to take pre-emptive safety measures?

This dataset provides an invaluable chance to investigate vehicle accidents in depth, investigating temporal, spatial, and causative variables. We seek to improve traffic safety measures and lower accidents across the country by examining weather effects, and contributing elements, and building prediction models.

Source of the Dataset:

This research project's dataset was obtained via Kaggle, a recognized site for sharing and accessing datasets. This large dataset contains around 7.7 million observations, making it a reliable and significant resource for our project.

Link to our GitHub Repository:

https://github.com/Krishna-G39129775/Wheels_and_Wrecks