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PROBLEM DESCRIPTION AND BACKGROUND

ROAD ACCIDENT SEVERITY

Background:- Each year around 20-30 Million people get into a road accident in which around 10% of those lose their lives. Road accidents are a serious shame for our society and still we are not in a state to reduce it. Most of the innocent casualties are of the pedestrians , cyclists and the bikers and between the age of 20-35 yrs, the future of any country and the solo earners of a family.

Problem Description:- Accidents are a total loss for a family, a person , a country. So creating a system to predict could save millions of lives and money too.

But, is predicting an accident possible? If someone would have asked it 20 years before, then the answer would be 'NO'. But nowadays, with the remarkable abilities of Machine Learning, AI, Deep Learning, everything is possible to an extent if tried correctly.

Now, If yes, then How? Everything in this world is related to each other,everything shows some sort of pattern, and that is what we need to work on. If we look closely, we can see that no one do a accident on purpose, there is always something behind the cause.

Like, for example --

Weather effect--

- Wet,snowy,icy roads are slippery and harder to apply brakes,
- Sandstorm,fog,smog cause a loss of visibility

Road condition effect-

- The unexpected / blind turns like in blocks
- Poorly parked vehicles
- sand/gravel on road causing it difficult to control vehicle
- Improper lighting on road

Other reasons-

- Unexpected pedestrians
- Overspeeding
- Drunk driver

And many others. So if we can gather these information and old accident records for a place we can **predict the road accident and its severity** using this and plan a journey accordingly.

CONCLUSION

We have to gather old accident record and its severity for a place with other informations like location of accident, number of people involved, number of pedestrians, number of vehicles time and date of accident, way of accident, road condition, lighting and whether at place of accident and create a machine learning model with this data so that later if we pass the following details , the model can predict the severity to us.