PROJECT PROGRESS 1/2

Driver Pre-Accident behavior pattern recognition

Introduction:

Majority of traffic accidents occur due to drivers compared to vehicles condition and road condition. Mistakes of driver's perception is the direct cause of traffic accidents. Majority of accidents are due to driver's misperception and miss-operation. With the help of neural network, we are trying to evaluate the behavior of the driver and we are going to provide updates about his actions to his emergency contacts and people riding along with him via a Text Message. We are going to design a neural network and train the neural network; we create various algorithms to train our model. Once we are done with training the model, we will analyze the accuracy of the model.

Progress:

We analysed various related research works and derived necessary conclusions from them. With the help of convolution neural network we will train our models to analyse driver behavioural patterns with the help of dataset.

Timeline:

Currently we are working on training our models and parallelly we are even working on related case studies, we expect to wrap up working on case studies as soon as possible and by progress update 2 we will be able to produce encouraging results, with our models. We are working on improving the accuracy and make sure that the trained model is as accurate as possible.

Final Deliverable:

By the end of the semester we are scheduled to collect, clean and label the data. The data shall be sourced from the open source platform Kaggle. The algorithm will be used to train the model and we shall use a different data set to test the data. 80% of the data shall be used to train the model. 20% of the data shall be used to test the model. Sufficient time shall be dedicated to provide corrections to prevent overfitting.

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