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:

Three prospective studies with a total sample size of 1000 participants were included in our analysis of individual level data. The variability between studies identifying abnormal electrocardiograms (ECG) and severe outcomes in accordance with a prior agreement was reduced by reanalysing each dataset. In order to train and evaluate the neural network, one thousand different patient histories, ECG readings, and syncope-related conditions were employed. We used two strategies to train and validate the tool because this study was experimental in nature. In one strategy, 800/1000 of the data were used for the training set and 200/1000 for the validation set. In detecting short-term, CNNs' sensitivity, specificity, and area under the receiver operating characteristic curve.

Timeline:

Currently we are working on training our models. We are working on improving the accuracy and make sure that the trained model is as accurate as possible.

Final Deliverable:

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. Sufficient time shall be dedicated to provide fixes to prevent overfitting.

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