**Business Understanding:** -do-

**Data Understanding:** load reshape, resizing if required, visualize a bit, histograms for frequency distribution between different classes, PCA, Correlation between different pixel values, intensity charts for sample images.

**Data Preparation/Pre-processing:** Pixel values are ratio type real valued data values- normalizing required,

**Modelling:** svm, cnn, vggnet-transfer, densenet161, LSTMs,

**Evaluation**: different evaluation measures- accuracy, f1, recall, (confusion matrix)

Deployment (Future Work)

Knn

Cnn

Lstm

Svm

Nbc

Xgboost

Title: Driver Distraction Detection

Desc: We've all been there: a light turns green and the car in front of you doesn't budge. Or, a previously unremarkable vehicle suddenly slows and starts swerving from side-to-side.

When you pass the offending driver, what do you expect to see? You certainly aren't surprised when you spot a driver who is texting, seemingly enraptured by social media, or in a lively hand-held conversation on their phone.

The project aims to detect such distractions. The model can then be deployed in devices which aim to reduce such long distractions, which potentially may cause accidents.

Title: Mental Health Condition Analysis of Employees to Estimate Workplace Environment Conditions

Description: With an increase in technology, social network, and efficiency, human beings have been forced to become more efficient than ever. And with exceedingly intensive expectations comes feelings of social resentment, depression, and lack of vigour. Mental illness in the workplace environment is still something that is known but not quite acted upon on a global scale and hence is a universally-erupting meltdown.

The project uses Artificial Intelligence to act upon a 2014 Mental Health Survey in order to produce results regarding detection and requirement of treatment.

Title: Sarcasm Detection

Description: Implementing deep learning techniques to detect sarcastic replies to a comment.

Intro

Data Understanding + Data Preparation (Preprocessing +Feature Extraction)

Models:

1. KNN
2. SVM
3. CNN A (From Scratch)
4. CNN B (Transfer Learning on VGG16)