



Ahmedabad
University

CSE 541 Computer Vision

Progress Report:

Distracted Driver Detection

Group Details:

Abraca-data

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Tasks performed this week

- Fine tuned ResNet50 model to perform better over test dataset.
- We used explainable AI to understand how our models predict and classify images.
- We implemented it on the ResNet50 and VGG19 model for predicting image features.

Outcomes of the task performed this week

- We analyzed how the model used particular image features
- Upon implementation, the results displayed the contribution of each feature, the inference helped to understand if we could add any post-processing layer for better performance.
- We also tried deriving conclusions about the best model for our dataset based on accuracy and computation time for each architecture.

Tasks to be performed in the upcoming week

- Prepare for End-sem expo.

Important Links

- <https://towardsdatascience.com/a-comprehensive-hands-on-guide-to-transfer-learning-with-real-world-applications-in-deep-learning-212bf3b2f27a>
- <https://towardsdatascience.com/illustrated-10-cnn-architectures-95d78ace614d>
- <https://cs231n.github.io/convolutional-networks/>
- <https://pytorch.org/tutorials/beginner/basics/intro.html>
- <https://cloud.google.com/blog/products/ai-machine-learning/explainimg-model-predictions-on-image-data>