

DRIVER DROWSINESS DETECTION MINI REPORT 4

BASU VERMA
(142002007)

under the guidance of

Dr Satyajit Das



IIT PALAKKAD

**INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD
PALAKKAD - 678557, KERALA**

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Part. 1

CNN Model

1.0.1 CNN Model using Inceptionv3:

Trained MobilNet model on MRL Eyedataset with input size of image as 150x150x3. All images were first resized into this and then converted into array.

Binary cross_entropy was used as the loss function and adam optimizer. Model contains 22,982,561 total parameters and out of these 1,179,777 trainable parameters. Model was trained for total of 40 epochs with 20% for validation. Following were recorded:-

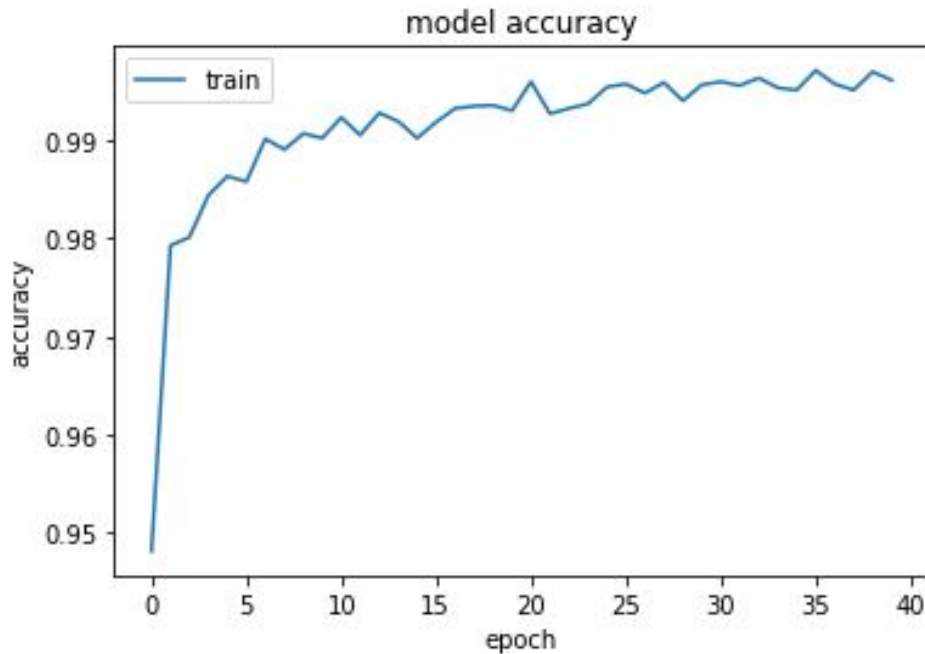


Fig. 1.1 Training curve for inception model

Model training accuracy is 99.61% and validation accuracy is 89.60% after 40 epochs but maximum validation accuracy was around 92.14% for 35 epochs.

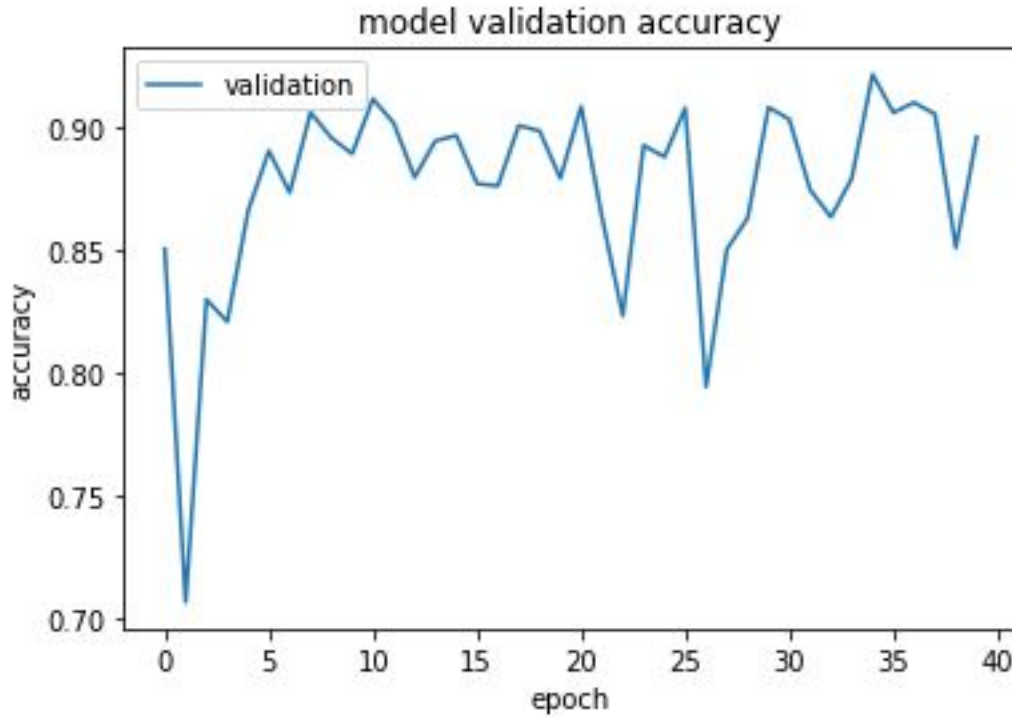


Fig. 1.2 Validation curve for inception model

1.0.2 CNN Model using Vgg16:

Trained MobilNet model on MRL Eyedataset with input size of image as 150x150x3. All images were first resized into this and then converted into array.

Binary cross_entropy was used as the loss function and adam optimizer. Model contains 15,239,105 total parameters and out of these 524,417 trainable parameters. Model was trained for total of 40 epochs with 20% for validation. Following were recorded:-

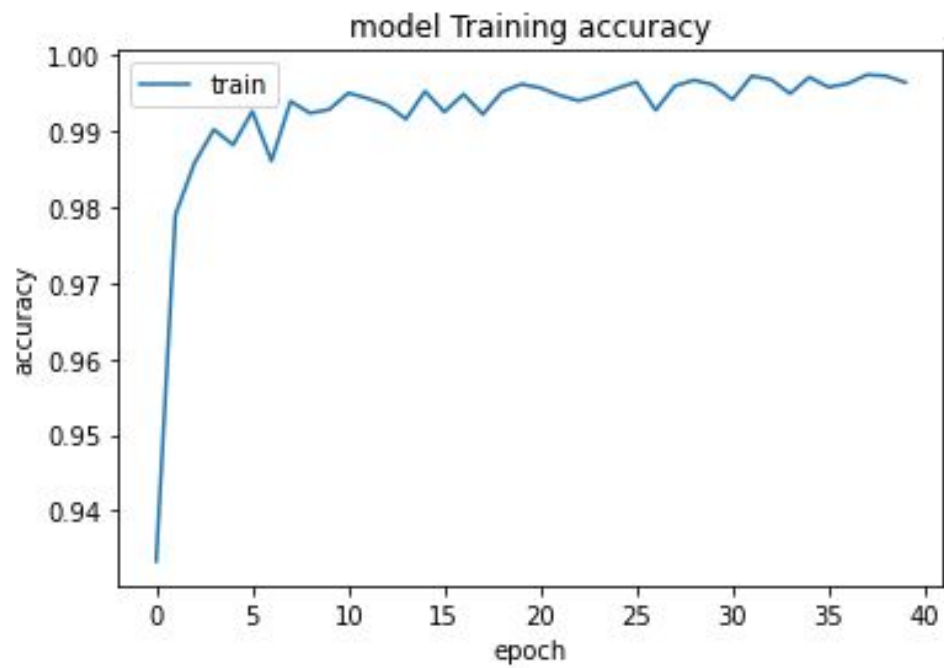


Fig. 1.3 Training curve for vgg16 model

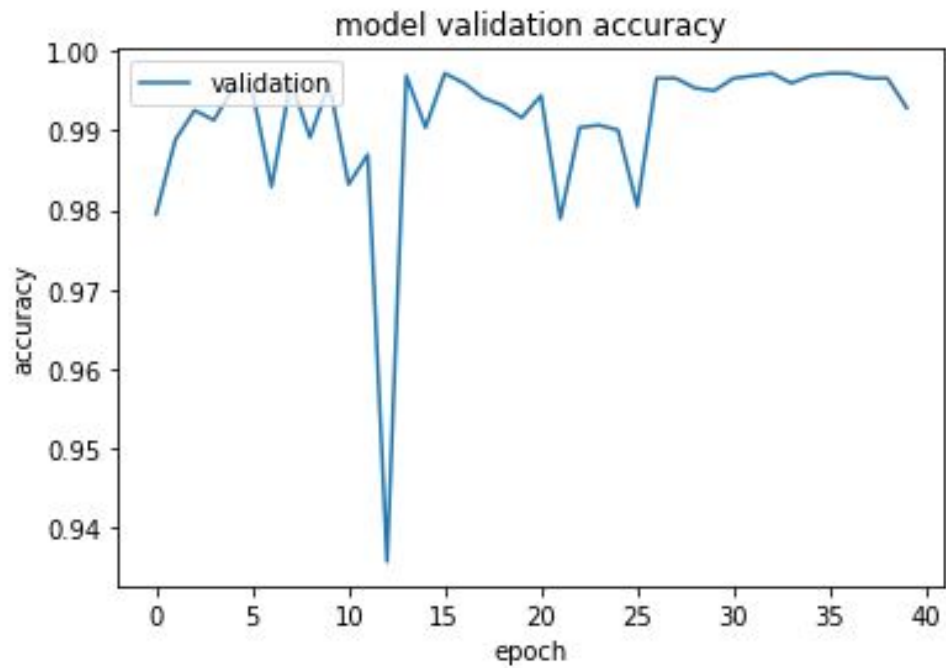


Fig. 1.4 validation curve for vgg16 model

Model training accuracy is 99.74% and validation accuracy is 99.72% after 40 epochs.

1.0.3 Future Work:-

1. Work on Computer vision technique.