Report - Mini Project

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Final Score: 5.59988

Approach:

Preprocessing

I scaled down all ages such that they lie between 0 and 1. Along with this I randomly flip the image horizontally, randomly rotate the image by -10 to 10 degrees and I also adjust the contrast, brightness, saturation and hue. I also apply gaussian blur.

Model

The model architecture I chose for this task is EfficientNet-B4. The pre-trained weights of EfficientNet-B4 are used as initialization for the model. A custom classifier is added on top of the pre-trained EfficientNet-B4. The classifier consists of fully connected layers with ReLU activation functions. The final layer outputs a single value representing the predicted age.

Training

Mean Absolute Error (L1 loss) is chosen as the loss function for training. Adam optimizer with a learning rate of 0.001 is used for optimizing the model parameters. A StepLR scheduler is employed to adjust the learning rate during training. The learning rate is reduced by a factor of 0.1 after every 5 epochs.

Prediction

After making predictions using the trained model on the test dataset, the predictions are descaled to obtain actual age values using the minimum and maximum age values from the training dataset.