Statistical Methods in AI

Assignment 4 (Mini-Project)

Deadline: 21/04/24 (for students with 3 day extension: 24/04/24)

In this Assignment, you will use the techniques learnt throughout this course to participate in a kaggle competition!

Overview:

Age prediction as a CV task is useful for various real-world applications, such as age-restricted content filtering, personalized marketing targeting specific age demographics, enhancing security systems with age verification, and assisting in medical diagnostics and age-related research.

In this contest, you will build a model to predict the age of a person, given the image of their face.

Link to the contest: https://www.kaggle.com/t/453b04eb4f2c4fe9ba9fe875aeacbf23

Kaggle Account:

1. If you do not have a Kaggle account; create one with your IIIT email address.
2. If you do have a Kaggle account but with a non-IIIT email address, please change your email address in the settings to your IIIT email address. This change is just for the duration of the contest and you can revert back to your old email once the contest is done.

Instructions:

1. You are allowed to use any ML/DL technique (including the ones not covered in class).
2. Due to the compute restrictions for many students, you are given a medium-sized dataset such that it is possible to train models using kaggle/colab. Training on datasets that is not provided by us is strictly not allowed, however transfer learning is permitted (Refer point 3).
3. Only ImageNet Dataset pretrained checkpoints can be used for transfer learning.
4. You can make multiple submissions on kaggle throughout the contest. Refer to the kaggle overview page on how to submit your solution. Your code for the best submission must be zipped (RollNo_A4.zip) and submitted on Moodle.

Grading:

1. Your score for this assignment is based on your position on the leaderboard.
2. The leaderboard will show your ranking based on only half of the test set during the contest.
3. The final leaderboard based on the full test set will be revealed at the end of the contest.

Additional information:

1. You can directly train models on models on kaggle. Go to the contest page, Code tab and click on New Notebook. The data would already be there in your working directory. You can use the starter code (Refer Discussion tab on kaggle) for loading the data.
2. The other alternative is to upload the dataset to Google Drive and work with Colab.
3. Explore the dataset before building your solution.