Summer Internship 2k22

Data Science Assignment

Notes

- Please choose **any one** of the projects.
- Please work on the chosen project and submit the deliverables by **11:59 pm on 11th March, 2022**.
- The following deliverables need to be submitted :
  a. Link to your colab notebook. Please try to use colab notebook to work on the project. If not, please deliver the link to your codebase.
  b. Documentation file in form of a PDF. It should detail your ideology, methodology and code flow.
  c. Screenshots of your evaluation metrics during training and testing. Please be honest, we will check and run random codes and verify the metrics.
- Please contact sourajmandal@imbesideyou.com if you have any doubts or questions and also to submit the deliverables.

Project 1 : Smile Classification

- **AIM** : To classify faces into :
  a. **NOT smile** : The face doesn't have a smile.
  b. **POSITIVE smile** : The face has a real smile.
  c. **NEGATIVE smile** : The face has a fake smile.
- **DATASET** : https://drive.google.com/drive/folders/1YZj1F3MhD7kdyc2LBm4YZYPZK1giAIk2?usp=sharing
- **Dataset Information** : train.csv and test.csv consists of annotations for training and testing respectively. happy_images.zip consists of the face images.

Project 2 : Face Classification

- **AIM** : To classify faces using **unsupervised** approach.
- **DATASET** :
  a. https://drive.google.com/file/d/1wSW18_sQzlQ7xN3Y41UhfOlmCL8dhu-J/view?usp=sharing consists of face images extracted from three different zoom meeting videos.
  b. https://drive.google.com/file/d/1RnsgIfAqpbjjDWSXS55w_jRBCBEivaz4/view?usp=sharing consists of annotations.
- Every face is annotated with a face id in the annotations file.
- You can ignore the images not having faces.
- You can also ignore the faces having masks.

Project 3 : Understanding Type Classification

- **AIM** : To detect situation where :
  a. The student **pretends to understand** the class contents.
  b. The student **actually understands** the class contents.
- **DATASET** :
  a. https://drive.google.com/drive/folders/1LVKT8cWvp1InsVKnhWGqvplx3qjvXkba?usp=sharing consists of online class movies.
  b. https://docs.google.com/spreadsheets/d/14I8GOpCLXjlGf_J5W_QkdH2kG8qtU2vo/edit#gid=158612308 consists of annotations.
- Please use only sheets 4, 5 and 7 of the annotations file. Other sheets have noise.
- Please ignore the samples having teacher annotations.
- **Hint** : Try to build a model for which :
  a. **Input** : Video segment or features of video segment of online class movies.
  b. **Output** : Class label for student pretends to understand or class label for student actually understands.

Summer Internship 2k22

Good luck!!