FACIAL RECOGNITION BASED ON CNN AND MACHINE LEARNING UPDATE #1

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PROJECT UPDATE #1

At the current task, we tried dataset splitting, data preprocessing, augmentation, normalization, and applied data into 2 layers of CNN to calculate the training and validation loss.

- In the beginning, we loaded the whole LFW dataset. For this trail, we preprocessed our dataset(named GWB) to recreate one trail dataset that contained A class and B class from other classes' images. We used the samples of George W Bush for A-class and a random sample of the other images for category B. The goal of this testing is to identify whether an image is George W Bush or not.
- Then, we split the dataset into training, validation, and testing datasets. Used the Pytorch class ImageFolder to load the datasets, Pytorch class transform to resize, chop the black border and normalize our data. Used class dataloader to load data on batch size.
- In the end, constructed a 2-layers CNN and applied our datasets to the CNN model to calculate the cross-entropy loss and accuracy with 76% at the end.

- GWB Dataset: https://drive.google.com/drive/folders/1KDf4YqoolskTs2YX5G-65NncoUHA9OOa?usp=sharing

THANK YOU