**Proposal of Project 3.**

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In project 3, I will investigate the mood recognition problem. Some people call it emotion recognition or emotion classification. It is interesting because, people have different emotions and they can be investigated and classified according to the changes on the face. For example, eyes and mouth play a big in expressing emotions. I know that we are not the first team who tried to recognize emotions. In the internet, there are many paper and articles about this issue. We are going to use the private dataset. We contacted the owner of the dataset and asked them to share it. As result, we got a password and link to the dataset. The properties of the dataset are:

Total number of images: 55767. It contains 7 different emotions of 6 different people. But since it takes too much time to run the whole dataset, we decided to choose 4 people with 3 emotions. As a result, we shortened the dataset to nearly 3200 images.

To implement the algorithm, we will use the CNN with multiclass case. Our code will contain train and validation parts. Then, to check the accuracy of code, we will try outside source image. Since our case is not binary, we will have a result as a form of one hot vector. For example, {1.0.0}, {0.1.0} and {0.0.1} where the position of 1’s tells us the mood type.