

Dataset: <https://www.kaggle.com/c/challenges-in-representation-learning-facial-expression-recognition-challenge/data>

Task: Identify whether the facial expressions of the photos in size (48, 48) in gray scale should be classified as one of the seven categories.

{0: 'Angry', 1: 'Disgust', 2: 'Fear', 3: 'Happy', 4: 'Sad', 5: 'Surprise', 6: 'Neutral'}

Approach: Stack 3 double 2D-Convolutional Neural Network, with 2D-Pooling Layer after each stack, then flatten it with fully connected layers with dropout layers as the regularization means.

Train data: 64% , Validation Data: 16%, Test Data: 20%

Output:

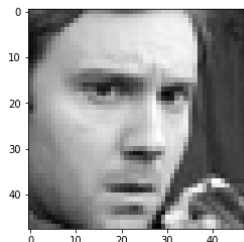
Below is one of the sample photo.

The output is classify every photo in test data into 1 of the 7 categories.

The accuracy is 59.3%

[Correct if classify into the correct label, otherwise it is treated as incorrect]

This is a sample image recovered from the dataset in ndarray
The emotion of this photo is:
Angry



Epoch 20/20
718/717 [=====] - 112s 156ms/step - loss: 1.1321 - acc: 0.5800 - val_loss: 1.0928 - val_acc: 0.5927
The accuracy of classification:
0.5929228197269434