

FACIAL EXPRESSION RECOGNITION

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Problem Statement

Generating expression appropriate facial filter.

Description

We use facial expression recognition to detect the emotion on a face from an image and then use that to augment the image with a relevant and mood appropriate facial filter (Like Snapchat).

Dataset

"Challenges in Representation Learning: A report on three machine learning contests." I Goodfellow, D Erhan, PL Carrier, A Courville, M Mirza, B Hamner, W Cukierski, Y Tang, DH Lee, Y Zhou, C Ramaiah, F Feng, R Li, X Wang, D Athanasakis, J Shawe-Taylor, M Milakov, J Park, R Ionescu, M Popescu, C Grozea, J Bergstra, J Xie, L Romaszko, B Xu, Z Chuang, and Y. Bengio. arXiv 2013.

Columns: Emotion, Pixel values of image, Training/Testing

ML Techniques

Tech stack: Keras, Tensorflow

Machine learning: Convolutional Neural Networks

Progress so far

We have successfully trained our convolutional neural network model and judged the most prominent emotion of the face.