Emotion Detection using CNN

A PROJECT REPORT

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Project proposal

Problem statement

Humans can effortlessly pick out emotions using their senses in which as computer imaginative and prescient seeks to mimic human vision by means of analyzing the digital image as entered. For humans to stumble on an emotion will not be a difficult task to perform. Detecting emotion via voice, for example detecting ‘stress’ in a voice with the aid of setting parameters in areas like tone, pitch, pace, volume and so forth in case of virtual photos.

Dataset selection

Detecting emotion simply by analyzing photos is novel. In this model, I am looking to design a convolutional neural network version that may classify the input photo into 2 exclusive feelings. The respected feelings I am going to classify are happy, sad . In order to classify these emotions, I am implementing Convolutional Neural Networks (CNNs) which can successfully and accurately elucidate semantic information coming from the faces in an automatic manner.

Model Architecture

Sequential - The sequential allowed me to create models layer-by-layer for Image Classifier.
I have used the keras sequential api.
OpenCV is used to when I remove my dodgy images
Matplotlib is used to visualize my images.

Tools

Keras, Tensorflow, Matplotlib, os, Conv2D, MaxPooling2D, Dense, Flatten, Dropout

Expected challenges

- *Intra-Class Variation.*
- *Scale Variation.*
- *View-Point Variation*