

Facial Expression Recognition using Deep Learning

Human emotions play a vital role in their internal non-verbal communication. However, emotions are abstract and cannot be seen directly with the naked eye. You can still easily discover your emotional state by simply observing facial expressions, speech and even text. Among them, facial expressions have become one of the most popular expressions due to such reasons. They are visible and it is easier to collect facial expression data than some other features. Due to the development of fields such as human-computer interaction and security, people's demand for human emotions has increased recently, and text although we know that facial expressions are successful under controlled conditions, we still have the opportunity to find emotions in natural situations due to occlusion, changes in posture and changes in lighting. In this work, main goal is to better understand and improve the performance of emotion recognition model in the process. Also, adopted some methods from recent publications, including transfer learning and integration to improve the accuracy of the model. At the same time, except for the data set used to train the model.

The main goal of this article is to create a good CNN model that is superior to traditional methods and human-level accuracy. It is the simple five-layer model. Our project classifies the IJF facial images into 6 emotions.

In this paper is work to create a system that can detect people's emotions in natural conditions and outperforms traditional approaches and human-level performance in terms of accuracy.