

Emotion Detection from Facial Expressions

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Abstract: Crucial for enhancing human-computer interaction and applications in healthcare and robotics. The proposed method utilizes Convolutional Neural Networks (CNNs) for high-accuracy classification of fundamental emotions like happiness, sadness, and anger, outperforming traditional approaches. After face detection and feature extraction, the model is trained on datasets such as FER-2013, achieving significant performance, thereby paving the way for more emotionally intelligent AI systems.

Keywords: Emotion Detection, Facial Expression Analysis, Facial Emotion Recognition, Convolutional Neural Networks (CNN), Deep Learning, Computer Vision, Affective Computing, Human–Computer Interaction