DEPRESSION DETECTION MODEL USING AUDIO SENTIMENT ANALYSIS

Abstract-

Depression is a common and disabling mental health disorder, which impacts not only on the sufferer but also on their families, friends and the economy overall.Depression affects an estimated one in 15 adults (6.7%) in any given year, but the problem bigger than depression is its DETECTION That's what we are trying to achieve using machine learning, artificial intelligence. We have made an automated model that can help in detecting whether a person is suffering from depression or not. All audio recordings and associated depression metrics were provided by the DAIC-WOZ Database, which was compiled by USC's Institute of Creative Technologies A spectrogram is made for each audio file using the feature value extracted from the given audiofile . We have used convolution neural networks with average pooling layers ,dropout, He-initialisation, batch normalization, exponential linear unit activation function and nesterov accelerated gradients optimizer for the spectrogram classification. An accuracy between 75-80% is observed under default un-tweaked hyper-parameters.