Abstract

Emotion identification is key to build an natural human-computer interaction, that is a computer that has an emotional intelligence in it's response. Emotion could be identified by EEG(electrochepalonogram).
Deep learning focused in finding hierarchial feature representation which in higer level represents more abstract aspect of data. By using deep learning, hierarchial feature of EEG data could be obtained and used as input for classifier. In this final task, emotion classified using deep learning by using stacked denoising autoencoder as builder for deep neural network. Best f1 score obtained for 4 class classification is 0.3578, 2 class classification best f1 score is 0.5656 for valence classification and 0.5891 for valence classification. Per person classification yeilds average f1 score of 0.5488. Increase in number of hidden layer and corruption level value yields varying effect in performance.

Keywords : EEG, DNN, Autoencoder, classification