Silent Speaker
A Lip-reading Model Using Deep Learning

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Declaration

This is to certify that this Thesis is my original work. No part of this work has been submitted elsewhere partially or fully for the award of any other degree or diploma. Any material reproduced in this project has been properly acknowledged.

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Abstract

Silent Speaker is an applied model of human-computer interaction. This model can be applied in various vital applications like crime-fighting and helping the hearing-impaired. It consists of one domains-Visual Speech Recognition. This project is made for recognizing speech without the presence or support of any auditory signal. So far, a lot of research work has been done on lip-reading in English, French, Chinese, and many languages. But there is little research work has done to recognize speech from a silent video in the Bengali language. This thesis work provides a new approach to detect some word of Bengali language using deep learning. In this project, we want to classify some words using our own created dataset. We track the distance between the inner and outer lip and extract features for LSTM and create our model that can classify the word. Our final accuracy is 43% and in the future, we want to increase our dataset size and modification of our model in such a way that can produce more accuracy.