**Gesture Recognition Project – Deep Learning**

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**Problem Statement**

We need to develop a cool feature in the smart-TV that can recognize five different gestures performed by the user which will help users control the TV without using a remote.

The following table consists of the experiments done to build a model to predict the gestures from the given data set.



**Conclusion**

The best performing model was based on *Time Distributed Conv2D* and *ConvLSTM2D* (see attached Jupyter Notebook). It gave the best results so far compared to all the other models based only on Conv3D or TimeDistributed+GRU. The best performing model the least number of parameters as well compared with the other iterations.

**Future Work**

This experiment was performed using Anaconda3 on a M1 Max computer. The problem on this ARM64 architecture is the supported Metal libraries for TensorFlow to use the GPU. Using the GPU would speed up all the experimentation in many orders of magnitude, since it was using CPU only for now.