

Experiment Number	Model	Result	Parameter	Accuracy	Decision + Explanation
1	Conv3D	Throws Generator error (OOM)	-		Trying to overfit on less amount of data.
2	Conv3D	Model is not trainable due to a lot of parameters	9,309,701	Training Accuracy: 0.7 Validation Accuracy: 0.27	Model is overfitted. Increasing the number of epoch and reducing batch size
3	Conv3D	Model is not trainable due to a lot of parameters	9,309,701	Training Accuracy: 0.71 Validation Accuracy: 0.25	Again, model is overfitted. Reducing the number of parameters and adding Dropout
4	Conv3D	Model is not trainable	500,965	Training Accuracy: 0.35 Validation Accuracy: 0.28	Increasing Number of Frames, Reducing Convolution layer, Reducing Filter size and Changing Normalization.
5	Conv3D	Model is trainable but with less accuracy	834,277	Training Accuracy: 0.56 Validation Accuracy: 0.78	Validation Accuracy is greater than Training Accuracy, which is a rare scenario. Increasing the number of neurons such that the training is properly done.
6	Conv3D	Model is trainable but with less accuracy	859,013	Training Accuracy: 0.50 Validation Accuracy: 0.68	Adding Strides.

7	Conv3D	Model is trainable but with less accuracy	1,694,917	Training Accuracy: 0.48 Validation Accuracy: 0.58	Increasing Neurons and Reducing Convolution Layer
8	Conv3D	Model is able to be trainable	8,393,093	Training Accuracy: 0.86 Validation Accuracy: 0.93	There is no big gap between Training Accuracy and Validation Accuracy. Good Model Trying Conv LSTM
9	CNN-LSTM	Model is trainable but with less accuracy	2,461,157	Training Accuracy: 0.63 Validation Accuracy: 0.59	Adding more convolution layers, Reducing Batch size, Reducing Frame Rate and Reducing Epoch For minimizing Parameters
10	CNN-LSTM	Model is able to be trainable	1,005,541	Training Accuracy: 0.87 Validation Accuracy: 0.71	Slightly overfitted Increasing Dropout Percentage
11	CNN-LSTM	Model is able to be trainable	1,005,541	Training Accuracy: 0.80 Validation Accuracy: 0.78	Good Model Awesome Result Trying Conv GRU
12	CNN-GRU	Model is able to be trainable	854,117	Training Accuracy: 0.82 Validation Accuracy: 0.78	Good Model with less Parameters Awesome Result !!

Final Model	CNN-GRU	854,117	Training Accuracy: 0.82 Validation Accuracy: 0.78	Good Model with less Parameters
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