

Experiment Number	Model	Result	Decision + Explanation
1	Conv3D	Train Accuracy: 1.00, Validation Accuracy: 0.77	The model exhibits over-fitting. Considering using Global Average Pooling instead of Flatten Layer.
2	Conv3D	Train Accuracy: 0.9509, Validation Accuracy: 0.9062	The model performs well with both training and validation scores. It possesses 710,533 trainable parameters. Exploring alternative architectures with fewer parameters is recommended.
3	Time Distributed + GRU	Train Accuracy: 0.9554, Validation Accuracy: 0.8203	The model shows promising performance on the validation dataset with fewer trainable parameters (98,885). Introducing dropout after each layer to bring train and validation accuracies closer is advisable.
4	Time Distributed + GRU (with Dropout)	Train Accuracy: 0.8720, Validation Accuracy: 0.6016	Model accuracy has decreased; considering replacing GRU with a plain Dense Layer Network and incorporating Global Average Pooling.
5 (Final Model)	Time Distributed + ConvLSTM 2D	Train Accuracy: 0.9985, Validation Accuracy: 0.91	This stands out as the best-performing model. Validation accuracy is excellent, and the number of parameters is minimal (13,589). The model size is also compact at 254KB.