**Deep Learning Case Study- Gesture Recognition**

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| **Experiment Number** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D** | **Model not trainable as a lot of parameters** | **Reduce the size of the image/Reduce the number of layers.** |
| **2** | **Conv3D** | **Out of Memory Error** | **Reduce the batch size/Reduce the no. of neurons in Dense layer** |
| **3** | **Conv3D** | **Training Accuracy: 0.97 Validation Accuracy: 0.83** | **Overfitting. Let us add some Dropout Layers** |
| **4** | **Conv3D** | **Training Accuracy: 0.76 Validation Accuracy: 0.71** | **Overfitting has reduced but accuracy has not improved. Adding more layers** |
| **5** | **Conv3D** | **Training Accuracy: 0.91 Validation Accuracy: 0.79** | **Reducing the number of network parameters by reducing image resolution/ filter size and dense layer neurons. Comparably good validation accuracy** |
| **6** | **ConvLSTM** | **Training Accuracy: 0.68 Validation Accuracy: 0.58** | **Do not see much performance improvement. Let us try with GRU.** |
| **7** | **ConvLSTM** | **Training Accuracy: 0.86 Validation Accuracy: 0.74** | **CNN - LSTM model – Got best validation accuracy of 74%.** |
| **Final Model** | **Conv3D** | **Training Accuracy: 0.84 Validation Accuracy: 0.80** | **Best result achieved 😊** |