The following Table consists of different Models experimented to predict gestures from the given data set

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| **Experiment Number** | **Model** | **Hyper Parameters** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D** | **Batch Size=25 Epochs=5 Learning Rate=0.0002 Input Size=64\*64**  **Dropout=0.25-1st Dense Layer** | **Train/Categorical Accuracy=0.38**  **Validation Accuracy=0.21** | **Model is not learning well, needs to adjust the dropouts and hyperparameters** |
| **2** | **Conv3D** | **Batch Size=16 Epochs=24 Learning Rate=0.0002**  **Input Size=64\*64**  **Dropout=0.25 & 0.5**  **Dropout= Nill -Convolutional Layer** | **Train/Categorical Accuracy=0.39**  **Validation Accuracy=0.34** | **Performance has slightly increased but needs more tuning of hyperparameters as its prediction is not in good** |
| **3** | **Conv3D** | **Batch Size=24 Epochs=20 Learning Rate=0.0002**  **Input Size=84\*84**  **Dropout=0.25-1st Dense Layer**  **Dropout= Nill -Convolutional Layer** | **Train/Categorical Accuracy=0.52**  **Validation Accuracy=0.33** | **Post the increase of dimension Model performance has lightly increased but validation accuracy decreased a bit, so further tuning is required** |
| **4** | **Conv3D** | **Batch Size=18 Epochs=25 Learning Rate=Default**  **Image Size=100\*100**  **Dropout=0.25** | **Train/Categorical Accuracy=0.44**  **Validation Accuracy=0.44** | **The model performed really better but it is still not giving good predictions hence further tuning is required** |
| **5** | **Conv3D** | **Batch Size=16 Epochs=22 Learning Rate=Default**  **Dimension=84\*84**  **Dropout=0.25** | **Train/Categorical Accuracy=0.70**  **Validation Accuracy=0.82** | **The model shows slightly underfitting, so it needs further tuning.** |
| **6** | **Time Distributed Conv2D+LSTM Model** | **Batch Size=10 Epochs=21 Learning Rate=0.001**  **Dimension=100\*100**  **Dropout=0.4** | **Train/Categorical Accuracy=0.71**  **Validation Accuracy=0.70** | **The model is stable and learning well from data, but it will perform better with further tuning.** |
| **7** | **Time Distributed Conv2D+LSTM Model** | **Batch Size=16 Epochs=16 Learning Rate=0.001**  **Dimension=120\*120**  **Dropout=0.3** | **Train/Categorical Accuracy=0.82**  **Validation Accuracy=0.75** | **The model is stable and learning well from data, but it will perform better with further tuning.** |
| **8** | **Conv3D+LSTM Model** | **Batch Size=16 Epochs=18 Learning Rate=0.001**  **Dimension=120\*120**  **Dropout=0.3** | **Train/Categorical Accuracy=0.81**  **Validation Accuracy=0.73** | **The model is stable and learning well from data, but it will perform better with further tuning** |
| **9** | **Time Distributed Conv2D+GRU LSTM** | **Batch Size=16 Epochs=20 Learning Rate=0.001**  **Dimension=120\*120**  **Dropout=0.3** | **Train/Categorical Accuracy=0.89**  **Validation Accuracy=0.81** | **The model is gradually learning from the data and has now reached its best. Can add a few more epochs** |
| **10** | **Conv3D+Transferrable Learning** | **Batch Size=16 Epochs=26 Learning Rate=0.001**  **Dimension=120\*120**  **Dropout=0.5** | **Train/Categorical Accuracy=0.98**  **Validation Accuracy=0.83** | **The model has achieved it’s best accuracy and is trained well.** |
| **Final Chosen Model** | **Model 10- Conv3D+Transferrable Learning** |  | **Accuracy -98%** | **The model has achieved it’s best accuracy and is trained well.** |
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