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| **Experiment Number** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D** | **Lot of data so unzipped data in my google rive and mounted it.** | **Direct copy of data was failing hence had to unzip to google drive and mounted google drive so that data will be available and wont be lost once session changes** |
| **2** | **Conv3D** | **Throws Generator error –“**Input to reshape is a tensor with 294912 values, but the requested shape requires a multiple of 12800” | 1. **This error was coming when dimension of images I kept as 100x100 . Error got resolved Resized images with 84x84 dimension** 2. **Also applied min max normalization** |
| **3** | **Conv3D** | **Experimented with model 1 of 3 Conv3D layer which has 4 filters -32,32,64,64 , Kernel size- (3,3,3 ) respectively , and batch normalization but model accuracy results were not promising.**  **Below is model summary for model 1**  Total params: 1,838,565  Trainable params: 1,838,181  Non-trainable params: 38 | **Removed this model1 and tried with another model 2 (explained in row 4 below). Removed this because model performance in terms of accuracy was not good. Best saved model .h5 was having training accuracy as 0.6 and validation accuracy as 0.18** |
| **4** | **Conv3D** | **Model 2 is selected as final model with 3 conv3d**  **Filters as 8 , 16,32 and**  **Kernel size as (5,5,5),(3,3,3),(1,3,3)**  **Model Summary as**  Total params: 839,157  Trainable params: 839,093  Non-trainable params: 64  **Validation Accuracy – 0.68** | **Model 1 was not performing good with this model parameters got good performance and training accuracy is 97% , validation accuracy is 68%** |
| **5** | **Conv2D+GRU** | **ModelGRU with model summary as below**  Total params: 6,294,565  Trainable params: 6,294,565  Non-trainable params: 0  **Very poor results coming with this model1 . Training accuracy and validation accuracy were not good**  **Best saved result was as below**  **Training accuracy – 0.21**  **Validation Accuracy – 0.40** | **Dropped this model 1 and experimented with model 2 (explained in row 6 below)** |
| **6** | **Conv2D+GRU** | **ModelGRU 2 with below summary**  Total params: 302,869  Trainable params: 302,741  Non-trainable params: 128  **Best saved .h5 has below accuracy**  Training accuracy - 1.00  Validation accuracy – 0.73 | **Comparing all other models including conv3d , this model performed better.** |
| **Final Model** | **Conv2D+GRU ModelGRU2** | **Best saved .h5 has below accuracy**  Training accuracy - 1.00  Validation accuracy – 0.73  “model-00024-0.00130-1.00000-0.85996-0.73000.h5" | **Final Selected model due to performance** |