# Write -Up

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| **Experiment Number** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D** | **Throws Generator error** | **Crop the images correctly, try to overfit on less amount of data** |
| **2** | **Conv3D** | **Best accuracy at epoch 6 with 90% in train and 84% in validation.** | **Using standard approach to create a simple con3d model with couple of max pooling layers.** |
| **3** | **Conv3D** | **Best accuracy at epoch 15 with 86% in train and 81% in validation.** | **Increase number of trainable parameters by adding more layers and used dropouts to prevent overfitting.** |
| **4** | **Conv3D** | **Accuracy achieved was very low and signs of low overfitting was observed.** | **Adding more layers and filters to see if the accuracy increases or not.** |
| **5** | **Conv2D + GRU** | **The model was severely overfit with very low accuracy. The loss was not converging.** | **Used VGG16 as the base with “ImageNet” as the weights and added time distributed layer with GRU layers.** |
| **6** | **Conv2D + GRU** | **The model was performing worse because of vanishing gradient issue.** | **Tried changing the number of layers and added dropouts to obtain better accuracy and model** |
| **7** | **Conv2D + GRU** | **Accuracy: 0.38 was achieved. Which is very low** | **Added couple more layers and dropouts to see better results.** |
| **8.** | **Conv2D + LSTM** | **The mode was severely underfit. The model was not converging** | **Used VGG16 as the base with “ImageNet” as the weights and added time distributed layer with LSTM layers.** |
| **9** | **Conv2D + LSTM** | **Accuracy: 0.35 was achieved. Which is very low.** | **Tried changing the number of layers and added dropouts to obtain better accuracy and model** |
| **10** | **Conv2D + LSTM** | **The model was severely overfit and accuracy of 0.45 was achieved.** | **Added couple more layers and dropouts to see better results.** |
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| **Best Model** | **Conv3D** | **Best accuracy at epoch 6 with 90% in train and 84% in validation.** | **Using standard approach to create a simple con3d model with couple of max pooling layers.** |