|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MODEL** | **EXPERIMENT** | **RESULT** | **DECISION + EXPLANATION** | **PARAMETERS** |
| Conv3D | **1** | **Error occurs** |  | **-** |
| Conv3D | **2** | **Training accuracy: 0.903**  **Validation accuracy:0.625** | **Overfitting**  **Let’s add some drop layers** | **2,067,621** |
| Conv3D | **3** | **Training accuracy: 0.91**  **Validation accuracy:0.875** | **Let’s reduce some parameters** | **9,006,245** |
| Conv3D | **4** | **Training accuracy:0.887**  **Validation accuracy:.375** | **Overfitting** | **5,618,245** |
| Conv3D | **5** | **Training accuracy: 0.89**  **Validation accuracy:0.375** | **Overfitting**  **Let’s reduced kernel to (2,2,2), switching Batch Normalization before MaxPooling.** | **1,907,909** |
| Conv3D | **6** | **Training accuracy: 0.96**  **Validation accuracy:0.05** | Accuracy remains below same. Let’s switch to conv2D+lstm model | **1,301,045** |
| Conv2D+LSTM | **7** | **Training accuracy: 0.93**  **Validation accuracy:.6875** | **We get good accuracy** | **3,084,133** |
| Transfer Learning (Mobile Net) with LSTM | **8** | **Training accuracy: 1.0**  **Validation accuracy:0.875** | **Highest training accuracy**  **Awesome result** | 4highest,611,781  **4,611,781** |

## After doing all the experiments:

## Experiment no 3 has highest value in both training and validation accuracy but number of parameters is **9,006,245 that’s why I choose CNN+LSTM based model**

CNN+LSTM based model has fairly decent accuracy considering the type of data as well the no. of parameters as I wanted my model to be light weight in nature.