|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment Number** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D** | **Accuracy**  **Training: 1.0**  **Validation: 0.2031** | **Check model on abilation data set of 64 . Model has clearly overftted. Now experiment with larger dataset** |
| **2** | **Conv3D** | **Accuracy**  **Training: 1.0**  **Validation: .81** | **Model is still overfitting add dropouts** |
| **3** | **Conv3D** | **Accuracy**  **Training: 0.85**  **Validation : .70** | **Model is overfitting and accuracy is reduced. Add more image frame to check if accuracy improves in validaiton.** |
| **4** | **Conv3D** | **Accuracy**  **Training: 0.85**  **Validaion: .77** | **Accuracy has improved , try to reduce batch size to check if model generalizes further** |
| **5** | **Convo3D** | **Accuracy**  **Training: 0.9261**  **Validation: .86** | **Validation accuracy has improved and model has become more stable. Now trying with CNN + RNN model to check if better accuracy can be seen in validation** |
| **6** | **CNN + RNN** | **Accuracy**  **Training : .9688**  **Validaiton: .3281** | **Trying out using MobileNet and RNN model using transfer learning. With same batch and image size as convo 3d. With small data set model overfits** |
| **7** | **CNN + RNN** | **Accuracy:**  **Training: .9777**  **Validaiton: .77** | **Model is overfitting , adding dropouts to generalize the model.** |
| **8** | **CNN + RNN** | **Accuracy**  **Training: .9276**  **Validation: .77** | **Model has become more generalized but validation accuracy is still lower. Increase the number of neurons.** |
| **9** | **CNN+RNN** | **Accuracy**  **Training: .9578**  **Validaiton: .7** | **Model is still overfitting now try to reduce the trainable parameters from mobilenet** |
| **10** | **CNN + RNN** | **Accuracy**  **Training: .99**  **Validation: .92** | **Although it has improved and become more stable . Now reduce the batch size further to check if it can improve further.** |
| **Final Model** | **CNN + RNN** | **Accuracy**  **Training: .98**  **Validation: .96** | **This model seems to be the most stable and best model we can achieve.** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |