Following are the experiment results:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Experiment Number** | **Batch Size** | **Number of Epocs** | **Image Size** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **40** | **20** | **120\*120** | **Conv3D** | **Accuracy:76%** | **A generator with Image Cropping and normalization is working fine and giving good result** |
| **2** | **90** | **30** | **120\*120** | **Conv3D** | **Accuracy:72%** | **Increasing the batch size reduced the model accuracy.** |
| **3** | **50** | **30** | **120\*120** | **CNN-LSTM** | **Accuracy: 40%** | **CNN with LSTMM model reduced the accuracy** |
| **4** | **60** | **30** | **160\*160** | **CNN-LSTM** | **Accuracy: 36%** | **The increase in batch size reduced the accuracy** |
| **5** | **50** | **30** | **120\*120** | **CNN-GRU** | **Accuracy:31%** | **Reducing the batch size has not improvement on accuracy.** |
| **6** | **30** | **30** | **120\*120** | **CNN-GRU** | **Accuracy:69%** | **Reducing the batch size improved the accuracy** |
| **7** | **20** | **30** | **120\*120** | **CNN-GRU** | **Accuracy:**  **74%** | **Accuracy Improved for batch size 20** |
| **8** | **20** | **25** | **120\*120** | CNN-RNN-LSTM-TL | **Accurracy:69%** | **Transfer learning with LSTM layer has not improved the accuracy** |
| **9** | **20** | **20** | **120\*120** | CNN-RNN-GRU-TL | **Accuracy: 86%** | **Transfer Learning with GRU layer has improved accuracy** |
| **Final Model** |  |  |  | **CNN-RNN-GRU-TL** | **Accuracy:**  **86%** | **The transfer learning with GRU is giving highest accuracy.** |