|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment Number** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D**  **batchNormalisation**  **Dropout**  **ELU and SoftMax activation**  **Epochs = 5**  **Batch size - 47**  **Sample size = 10** | **Trainable params: 1,062,725**  **training\_accuracy: 0.2894**  **validation\_accuracy: 0.0071** | **Cropped images to 100x100.**  **Normalise the image by channel**  **Output - Low training accuracy and very low validation accuracy** |
| **2** | **Conv3D**  **batchNormalisation**  **Dropout**  **ELU and SoftMax activation**  **Epochs = 15**  **Batch size - 47**  **Sample size = 20** | **Trainable params: 2,053,893**  **training\_accuracy: 0.22836878895759583**  **validation\_accuracy: 0.13475176692008972** | **Increased the epochs and sample size.**  **slightly improved validation accuracy.** |
| **3** | **Conv3D**  **batchNormalisation**  **Dropout**  **\*RELU\* and SoftMax activation**  **Epochs = 15**  **Batch size - 47**  **Sample size = 20** | **Trainable params: 566,533**  **training\_accuracy: 0.2567375898361206**  **validation\_accuracy: 0.44680851697921753** | **Using RELU.  reduced the parameters.** |
| **4** | **Conv3D**  **batchNormalisation**  **Dropout**  **\*RELU\* and SoftMax activation**  **Epochs = 20**  **Batch size - 55**  **Sample size = 20** | **Trainable params: 566,533**  **training\_accuracy: 0.3048951029777527**  **validation\_accuracy: 0.9818181991577148** | **Removed Dropouts**  **Increase in Training accuracy and 98% validation accuracy.**  **Data must be checked.** |
| **5** | **Conv3D**  **batchNormalisation**  **Dropout**  **\*RELU\* and SoftMax activation**  **Epochs = 33**  **Batch size - 65**  **Sample size = 30** | **Trainable params: 1,124,517**  **training\_accuracy: 0.3048951029777527**  **validation\_accuracy: 0.9818181991577148** | **— Had to abort due to time constraints.**  **— Time exhaustive model.** |
| **6** | **Conv2D+LSTM**  **TimeDistributed**  **batchNormalisation dropout** | **Trainable params: 212,741**  **training\_accuracy: 0.3048951029777527**  **validation\_accuracy: 0.9818181991577148** | **Similar results to Conv3d**  **— very less params used here.** |
| **Final Model** | **……………….** | **………….** | **…………………** |