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| Experiment | Batch Size | Frame Number | Image Resolution | Training Accuracy(%) | Validation Accuracy(%) |
| 1.(Conv3d) | 30 | 15 | 100 X 100 | 23.5 | 23 |
| 2.(Conv3d) | 20 | 30 | 100 X 100 | 17.6 | 25 |
| 3.(Conv3d) | 15 | 30 | 160 X 160 | 25.9 | 15.71 |
| 4.(Conv3d) | 30 | 16 | 160 X 160 | 31.88 | 20 |
| 5.(Conv3d) | 40 | 20 | 160 X 160 | 46 | 18.3 |
| 6.(Conv3d) | 20 | 20 | 160 X 160 | 46.2 | 26 |
| 7.(Conv3d) | 30 | 15 | 120 X 120 | 46.49 | 38.76 |
| 8.(Conv3d) | 20 | 15 | 120 X 120 | 51 | 23.2 |
| 9.(Conv3d) | 20 | 15 | 120 X 120 | 50.66 | 38.45 |
| 10.C2d+lstm | 20 | 18 | 120 X 120 | 48.04 | 56 |
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1. The model was run raw with batch size 50, frame number = 30 and image resolution of 360,360. We ran into OOM errors. Needed to check the impact of image size,number of images and the batch size.
2. Reduced the image resolution to 160x160 and reduced the batch size to 30, and the model successfully started computing the accuracies. Hence the image resolutions were decreased in the further models. Batch size were kept optimal at 10-30
3. Experiment 1 to 4 were ran to analyze the impact of the respective parameters on the accuracy
4. From the numbers obtained from Experiment 1 to Experiment 4, we observe that batch size has less impact on the accuracies. Hence we further optimized the number of images and image resolution.
5. Experiment 5, we had very high training accuracy while lower validation accuracy. This was a problem of overfitting.Needed to add drop some dropout layers
6. Experiment 6 resulted in the same case of overfitting and no improvement. So tweaked with the learning rate. Reduced it to 0.0002
7. Experiment 7 gave a very good score, though the accuracies are quite low. We decreased the resolution in this model. Here we reduced the filter size to (2,2,2) and we achieved some good results with low parameters
8. Experiment 8 we added more drop out layers and we saw more overfitting. In the next experiments we try to reduce the model size since we are dealing with a lot of parameters
9. In Experiment 9, we reduced the number of parameters. We increased the filter size, decrease the neuron density to 64 and we achieved some stable results
10. Finally we tried Conv2d and LSTM and achieved 48% in training and 56% in validation.