

Summary (Write Up)

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Experiment Number	Model	Result	Decision + Explanation
1	Conv3D	Memory full exception	Reduced the batch size from 32 to 8 and reduced the number of parameters of the model
2	Conv3D	Model overfit, huge gap between training and validation but performing well for 10 epochs	Increase the dropout and percentage and regularization in the previous model, also increasing the number of epochs to 20 to check the stability
3	Conv3D	Overfitting is gone, now let us try to improve our model performance more. Training: ~82% Validation: ~85%	Increase dropout and regularization to see if we get steady growth
4	Conv3D	The model performance reduced significantly. Training: ~55% Validation: ~43%	Loss was reducing but still we increased the number of epochs (40) to check how our model performs with same dropouts and regularization values
5	Conv3D	We have a stable model with least fluctuations at the end of epochs. Training: ~72% Validation: ~72%	This model looks good.
6	CNN + RNN	Great accuracy for low epochs Training: ~95% Valid: ~93%	It performs very well so we will keep it as a backup more and experiment more with dropout (removing one dropout and checking it on 5 epochs)
7	CNN + RNN	This also performed well Training: ~93% Valid: ~85%	% epochs seem to less to try out so we will use 20 epochs this time with no change in the model
8	CNN + RNN	Best train: ~99% Best Valid: ~96%	Keeping this as backup model, will try to increase the dropout and see if we can bring these accuracies as close as possible.
9	CNN + RNN	Best train: ~98% Best Valid: ~93%	We got nearly same accuracy, but the model seems to be fluctuating on validation set so will use the model number 8 as final model