# Experiments Performed

**Batch Size Experiment**

* batch\_size = 300; Runtime kernel resetting itself
* batch\_size = 150;
  + working smoothly for Conv2d+LSTM model
  + failing for Conv3d model, runtime kernel resetting as parameters count is too high
* batch\_size = 30;
  + Only for Conv3d model
  + batch\_size = 150 for Conv2d+LSTM model

**ConvLSTM Model**

1. ***4 Conv layers + 1 LSTM (without dropout layer)***

Model overfitting on train data. Decision to add dropout layer for each hidden layer.

*Best validation accuracy: 74.00%*

*Best validation loss: 0.8338*

1. ***4 Conv2D layers + 1 LSTM (without dropout layer for each hidden layer)***

Need to increase the dropout layer percent as the model is still overfitting on the train data. Hyper-parameter tuning required.

*Best validation accuracy: 74.00%*

*Best validation loss: 0.768570*

**Conv3d Model**

1. ***2 Conv3D layers***

In development; ongoing experimentation

*Best validation accuracy: NA*

*Best validation loss: NA*

**Model with Best Accuracy and loss:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Model** | **Best Val Accuracy** | **Best Val Loss** |
| 1 | ConvLSTM | 74.00% | 0.8338 |
| 2 | ConvLSTM | 74.00% | 0.7686 |
| 3 | Conv3D | - | - |