I tried multiple Conv3D models. They were having different accuracies and depending upon the hyperparameters and certain other factors. Those were:

1. Batch size
2. Image size
3. Conv3D layers
4. Dropout threshold
5. Training data size

**Try 1**

I added two Conv3D 32 layers with (3,3,3) filters followed by a dense 512 layer with 50% dropouts. I did not use max-pooling. The batch size was 50 and the training size was 200. Other params were:

* Image size - 150 X 150
* Epoch - 10

The accuracy was 56.00%. The accuracy was poor. Should try changing the layers.

**Try 2**

The CNN layers were as follows:

* Conv3D - 32
* Conv3D - 32
* Max pool (3,3,3)
* Conv3D - 32
* Conv3D - 32

The ConvdD layers were followed by a Dense - 512 layer.

The batch size was 32 and the training size was 200. Other params were:

* Image size - 120 X 120
* Epoch - 10

The accuracy was 60.21%. It was an improvement. Next, I should try cropping the images.

**Try 3**

The same configuration with as above. But I cropped the image from the center to 100X100 either way.

The accuracy was 61.00%

I think the CNN layers are still not good. They are overfitting. Should try more options.

**Try 4**

The CNN layers were as follows:

* Conv3D - 16
* Max Pool (3,3,3)
* Conv3D - 32
* Max pool (3,3,3)
* Conv3D - 32
* Max pool (3,3,3)

The ConvdD layers were followed by a Dense - 512 layer with 50% dropouts.

The batch size was 32 and the training size was 200. Other params were:

* Image size - 100 X 100
* Epoch - 10

The accuracy was 65.00%. It was an improvement. Next, I should try more layers.

**Try 5**

The CNN layers were as follows:

* Conv3D - 32
* Max Pool (3,3,3)
* Conv3D - 64
* Max pool (3,3,3)
* Conv3D - 128
* Max pool (3,3,3)

The ConvdD layers were followed by a Dense - 512 layer with 50% dropouts.

The batch size was 20 and the training size was 200. Other params were:

* Image size - 100 X 100
* Epoch - 10

The accuracy was 74.00%.

**Try 6**

I tried the same configuration as above, but with all the training data available. The accuracy was 76%.