Supervised ResNet

Choosing Model

I tried both ResNet as well as CNN and expectedly ResNet gave a better less and helped reducing overfitting. It pushed val_accuracy from 65% to over 70% and val_loss to a minimum of 0.87 compared to a loss of above 1 for CNN.

Data Augmentation

Augmenting the data by adding transformations like rotation, flip and colour jitter helped reduce overfitting. Dropout layers also helped boost val_accuracy

Choosing Epochs

I trained the model over a range of epochs (from 60 to 150). And for the chosen learning rate the model gave the best performance at around 90 epochs i.e. high accuracy without overfitting