Epochs:

For epochs, there is a chance of overfitting the data when the epoch is significantly large therefore increasing the epoch will lower the accuracy. However, if the epoch is too low, it's possible for

Batch size

Increasing the batch size will decrease the learning time per epoch however, when the batch size increase, the epoch size will need to increase for the accuracy to reach its full potential before it overfits. As a result there is a balance between Batch size and epoch.

Network configurations

For the amount of layers, an increase of layers will increase the accuracy however, there is a limit for the amount of layers it can use or else when the layers increase high enough, the accuracy will start to decrease. For example in the code, when I increase the layers greater than 4, it seems like the accuracy decrease and loss increase.

Learning Rate

For the learning rate there needs to have a fine tune for it. For example, when I had a learning rate of 0.0001 I was not able to increase or decrease without decreasing the accuracy. Therefore, its recommended to stick with one learning rate than fine tune it.

Activation Functions

Dropout rates

Dropout rates will increase the accuracy for a certain amount, however, when it increases the dropout rate too much around 0.5 or greater, the accuracy will start to decrease and loss increase.