

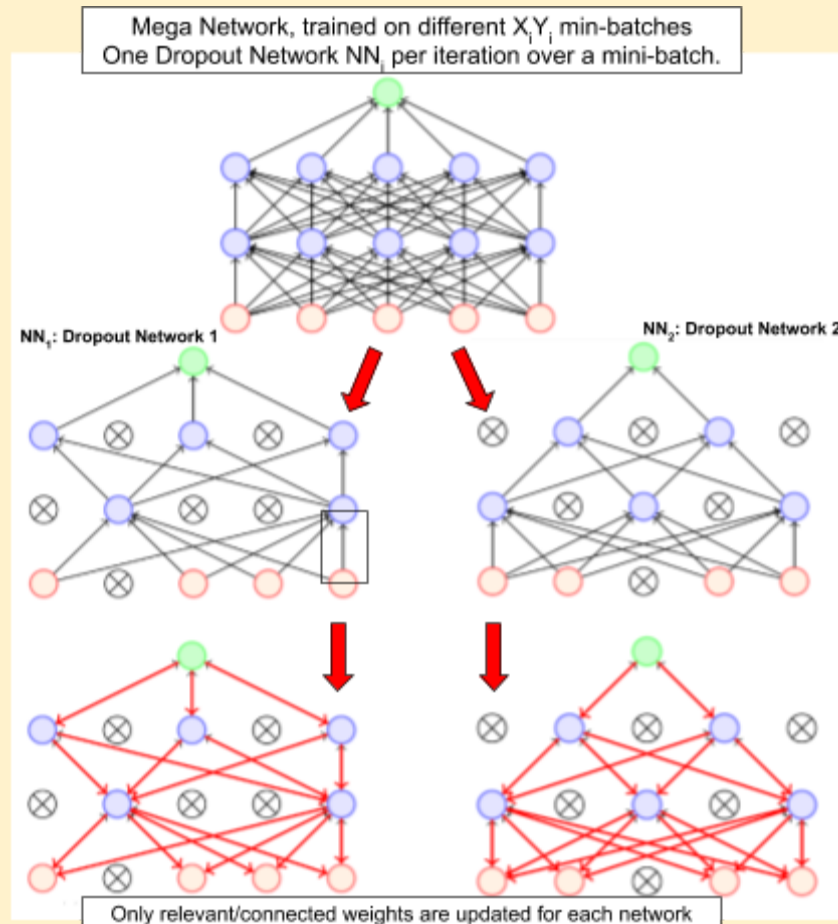
PadhAI: Batch Normalization and Dropout

One Fourth Labs

Training without dropout

What does the training procedure look like?

1. Let's look at the training procedure for dropped-out networks



a. **Initialise:**

- i. Initialise the parameters

b. **Iterate over data:**

- i. $X_i Y_i$ = Current_mini_batch
- ii. NN_i = dropout Network for that mini-batch (made using coin-toss method for each neuron n)
- iii. The same/relevant weights are shared between the mega-network and the dropped out network.
- iv. $L(\theta) = \text{compute_loss}(NN_i, X_i Y_i)$
- v. Backpropagate(NN_i)
- vi. Only connected weights are updated.

c. **End:**

- i. Repeat till satisfied