

Improving Neural Network Performance

1. Overfitting

- Dropout Layers
- Regularization(L1 & L2)
- Early Stopping

2. Normalization

- Normalizing inputs
- Batch Normalization

3. Vanishing Gradients

- Activation Functions
- Weight Initialization

4. Gradient Checking and Clipping

5. Optimizers –

- Momentum
- Adagrad
- RMSprop
- Adam

6. Learning rate scheduling

7. Hyperparameter Tuning

- No. of hidden layers
- nodes/layer
- Batch size