Improving Neural Network

1. **<u>Vanishing Gradient</u>**
   - Activation function change
   - Weight Initialization

2. **<u>Overfiting</u>**
   - Reduce complexity / Increase data
   - Dropout layers
   - Regularization(L1, L2)
   - Early stopping

3. **<u>Normalization</u>**
   - Normalizing Inputs
   - Batch normalization
   - Normalizing activation

4. **<u>Gradient checking and clipping</u>**

5. **<u>Optimizers</u>**
   - Adam
   - RMSprop
   - Momentum
   - Adagard

6. **<u>Learning rate scheduling</u>**

7. **<u>Hyperparameter tunning</u>**
   - No. of hidden layers
   - Nodes in layer
   - Batch size