

09 ANNs and components

Thursday, 24 June 2021 10:14 PM

① Primary Components (Model building)

① N.N Architecture

Feed forward / Feed Back

Input layer / Neurons / weight
Hidden layer & Output layer
Activation function

② Training, validation, & test dataset

③ Learning & loss function

④ Optimizers

⑤ Backpropagation

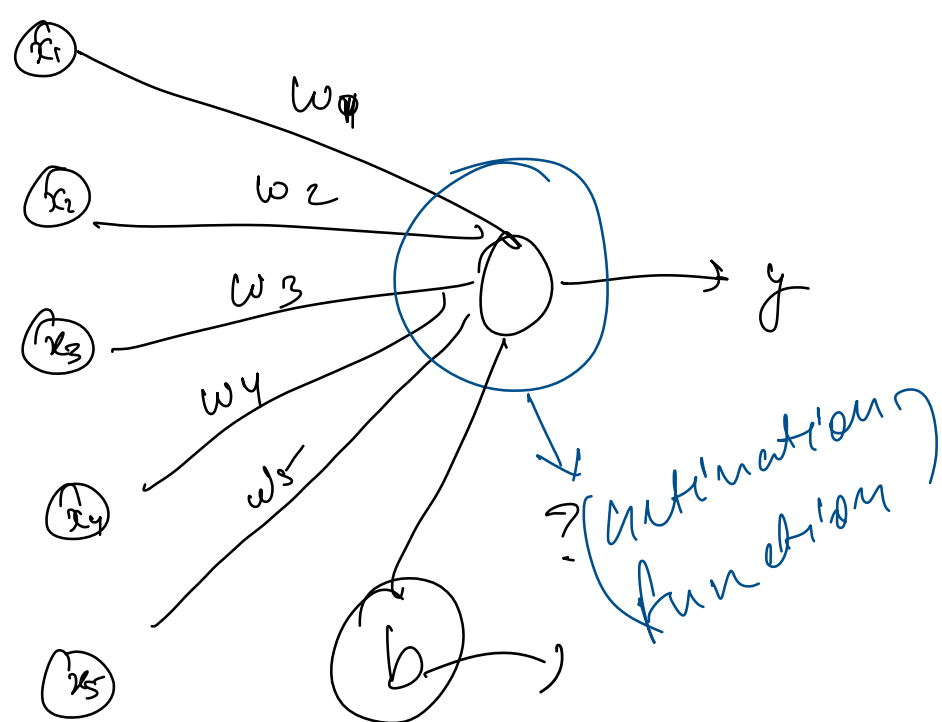
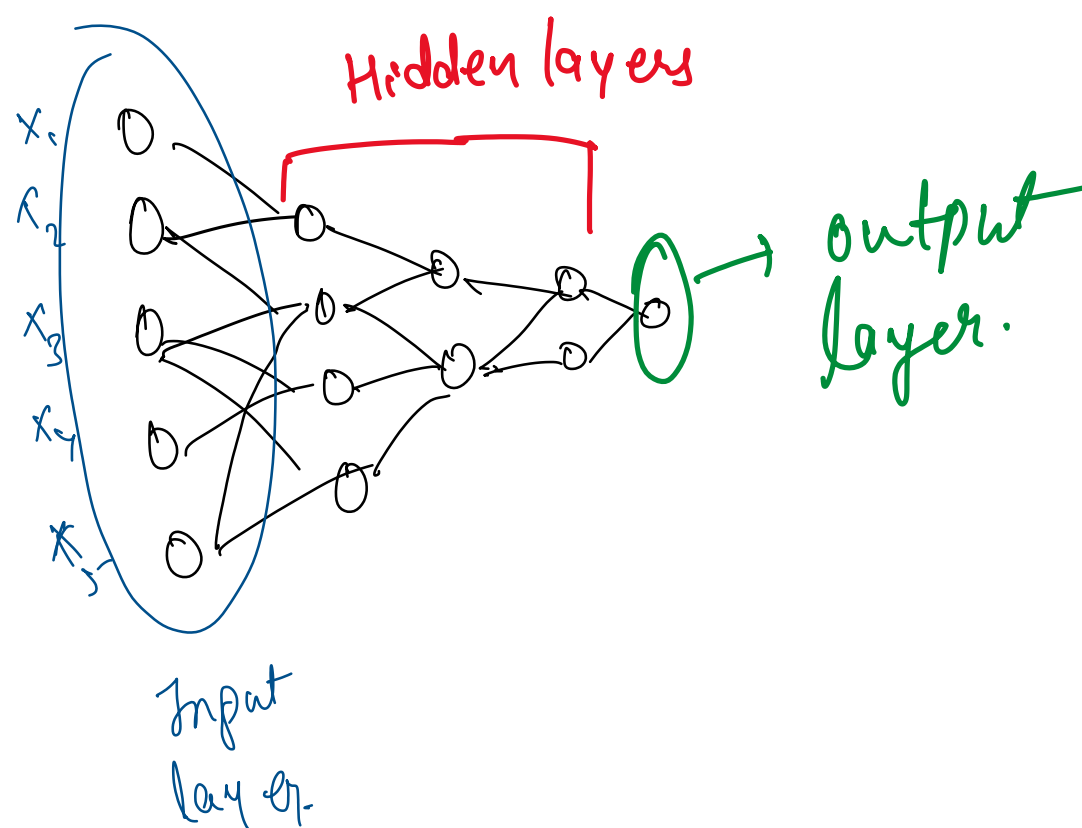
② Secondary Components (Hyperparameter tuning)

- Dropout

- L1 / L2 Regularizers

- Data Augmentation

- Early Stopping



$$\rightarrow (x_1 w_1 + w_2 x_2 + w_3 x_3 + w_4 x_4 + w_5 x_5) + b$$

$$\rightarrow \sum w \cdot x + b$$

$$\rightarrow \text{Activation function} (\sum w \cdot x + b)$$

→ "Non-linearity"