Linear Activation Function

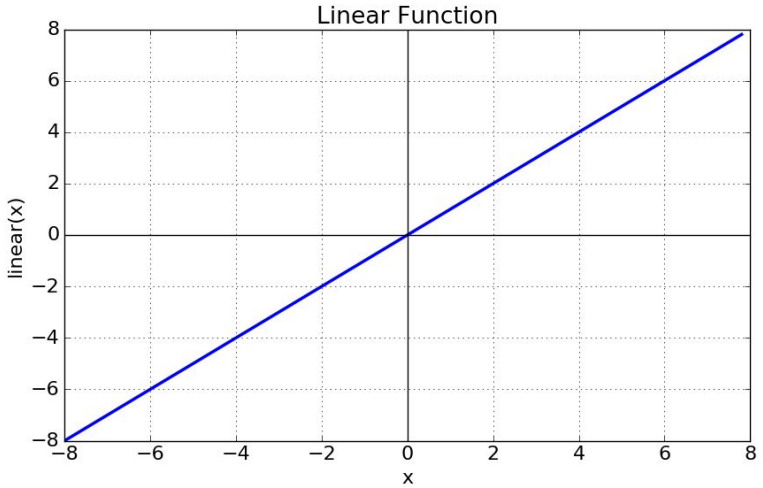
Linear Activation Function

- Linear Activation Function: $y = ax$

Linear Activation Function

- Linear Activation Function: $y = ax$
- Graph of Linear Function:

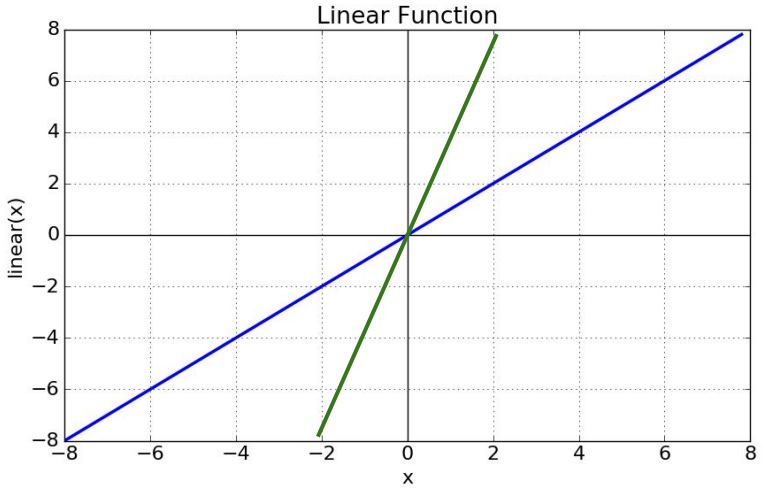
$$y = x$$



Linear Activation Function

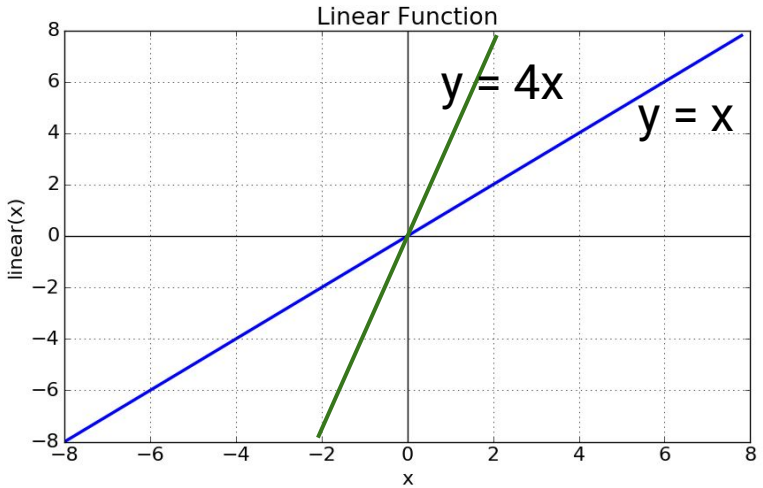
- Linear Activation Function: $y = ax$
- Graph of Linear Function:

$$y = 4x$$



Linear Activation Function

- Linear Activation Function: $y = ax$
- Graph of Linear Function:
- Input Range: (- ∞ to ∞)
- Output Range: (- ∞ to ∞)



Back Propagation in Neural Network

$$\frac{dE}{dW_{ih}} = \frac{dE}{dO} * \frac{dO}{dZ_2} * \frac{dZ_2}{dh_1} * \frac{dh_1}{dZ_1} * \frac{dZ_1}{dW_{ih}}$$

$$\frac{dE}{db_{ih}} = \frac{dE}{dO} * \frac{dO}{dZ_2} * \frac{dZ_2}{dh_1} * \frac{dh_1}{dZ_1} * \frac{dZ_1}{db_{ih}}$$

Linear Activation Function Derivative

- Linear Activation Function:

$$y = ax$$

Linear Activation Function Derivative

- Linear Activation Function:

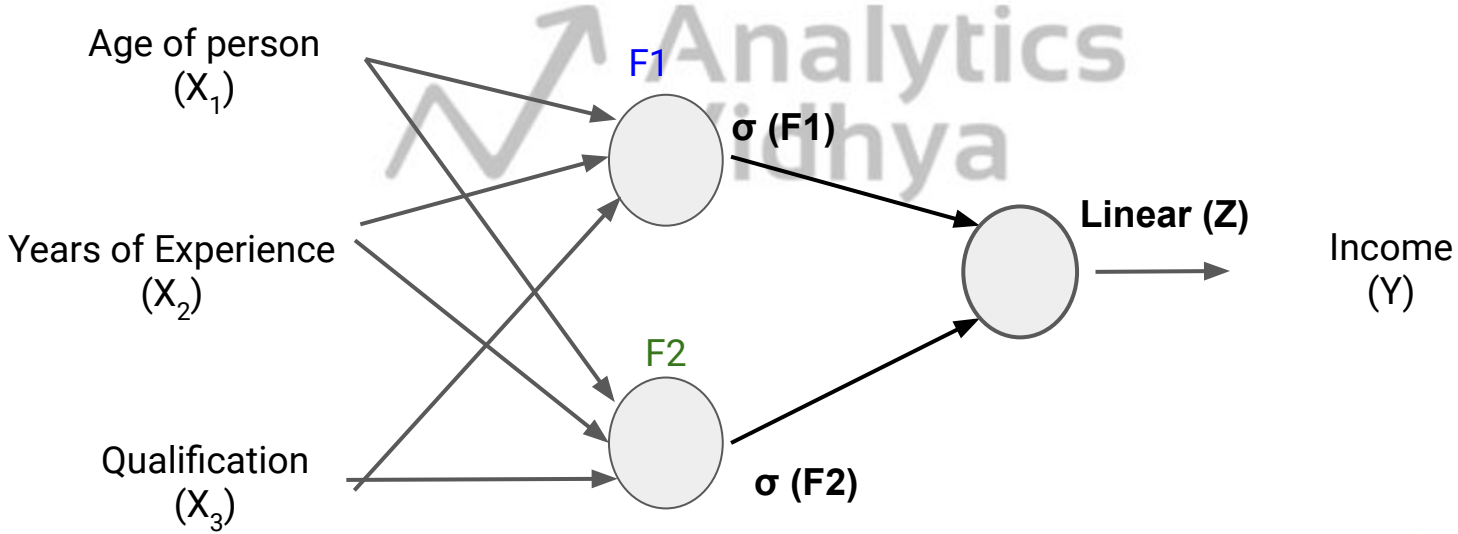
$$y = ax$$

- Linear Activation Function derivative:

$$\frac{dy}{dx} = a$$

Linear Activation Function

- Linear Activation Function: $y = ax$



Thank You