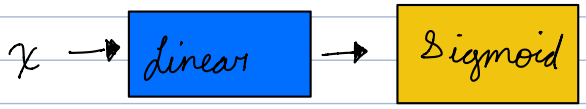
Classic Linear Regression

$$\hat{y} = x * w + b$$

Loss: MSE $\frac{1}{N} \sum_{n=1}^{N} (\hat{y}_n - y_n)^2$

Logistic Regression



$$\sigma(z) = \frac{1}{1 + e^{-z}}$$

$$\hat{y} = \sigma(x * w + b)$$

Binary Prediction

Loss: Cross Entropy

$$-\frac{1}{N} \sum_{n=1}^{N} y_n \log \hat{y}_n + (1 - y_n) \log(1 - \hat{y}_n)$$