

$$\omega = \begin{bmatrix} w_1 \\ \dots \\ w_m \end{bmatrix}, = \begin{bmatrix} x_1 \\ \dots \\ x_m \end{bmatrix}$$

$$netinput : z = w_1 * x_1 + w_2 * x_2 + \dots + w_m * x_m$$