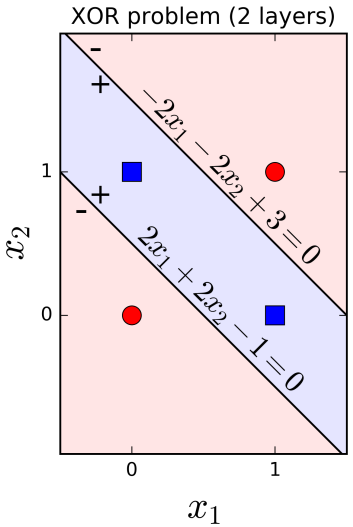

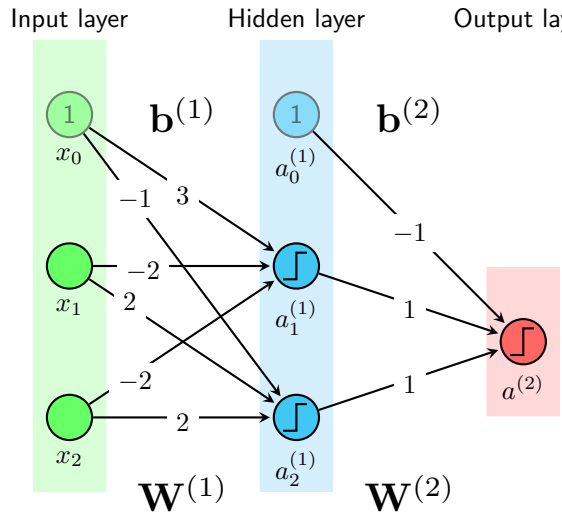

$$\mathbf{W}^{(1)} = \begin{bmatrix} -2 & 2 \\ -2 & 2 \end{bmatrix}; \quad \mathbf{b}^{(1)} = \begin{bmatrix} 3 \\ 1 \end{bmatrix}$$

$$\mathbf{W}^{(2)} = \begin{bmatrix} 1 \\ 1 \end{bmatrix}; \quad \mathbf{b}^{(2)} = \begin{bmatrix} -1 \end{bmatrix}$$

$$\mathbf{x} = \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}; \mathbf{a}^{(1)} = \begin{bmatrix} a_1^{(1)} \\ a_2^{(1)} \end{bmatrix}$$

$$\mathbf{a}^{(1)} = f\left(\mathbf{W}^{(1)T}\mathbf{x} + \mathbf{b}^{(1)}\right)$$

$$a^{(2)} = f\left(\mathbf{W}^{(2)T}\mathbf{a}^{(1)} + \mathbf{b}^{(2)}\right)$$

$$f(.) = \text{sgn}(.) \text{ (element-wise)}$$