
$$\max\left(0, 1 - y_4 \left(\vec{w}^{(3)T} \vec{x}_4\right)\right) = \max(0, 2) = 2$$

$$\frac{\partial E_{in}(\vec{w}^{(3)})}{\partial \vec{w}^{(3)}} = -y_4 \vec{x}_4 = (1, 0, 0)^T$$

$$\vec{w}^{(4)} = \vec{w}^{(3)} + y_4 \vec{x}_4 = (0, 1, 1)^T$$

第五轮迭代

$$\max\left(0, 1 - y_5 \left(\vec{w}^{(4)T} \vec{x}_5\right)\right) = \max(0, 2) = 2$$

$$\frac{\partial E_{in}(\vec{w}^{(4)})}{\partial \vec{w}^{(4)}} = -y_5 \vec{x}_5 = (1, 1, 0)^T$$

$$\vec{w}^{(5)} = \vec{w}^{(4)} + y_5 \vec{x}_5 = (-1, 0, 1)^T$$

第六轮迭代

$$\max\left(0, 1 - y_6 \left(\vec{w}^{(5)T} \vec{x}_6\right)\right) = \max(0, 1) = 1$$

$$\frac{\partial E_{in}(\vec{w}^{(5)})}{\partial \vec{w}^{(5)}} = -y_6 \vec{x}_6 = (1, 0, 1)^T$$

$$\vec{w}^{(6)} = \vec{w}^{(5)} + y_6 \vec{x}_6 = (-2, 0, 0)^T$$

第七轮迭代

$$\max\left(0, 1 - y_1 \left(\vec{w}^{(6)T} \vec{x}_1\right)\right) = \max(0, 3) = 3$$

$$\frac{\partial E_{in}(\vec{w}^{(7)})}{\partial \vec{w}^{(7)}} = -y_1 \vec{x}_1 = (-1, -1, -1)^T$$

$$\vec{w}^{(7)} = \vec{w}^{(6)} + y_1 \vec{x}_1 = (-1, 1, 1)^T$$

第八轮迭代

$$\max\left(0, 1 - y_2 \left(\vec{w}^{(7)T} \vec{x}_2\right)\right) = \max(0, -2) = 0$$

$$\vec{w}^{(8)} = \vec{w}^{(7)} = (-1, 1, 1)^T$$

第九轮迭代

$$\max\left(0, 1 - y_3 \left(\vec{w}^{(8)T} \vec{x}_3\right)\right) = \max(0, 0) = 0$$