$C = \frac{1}{2}\left(\vec{a}_3 - \vec{l}\right)^2 = \frac{1}{2}\left(\sigma(w_2 \cdot \vec{a}_2 + \vec{b}_2) - \vec{l}\right)^2 = \frac{1}{2}\left(\sigma(w_2 \cdot \sigma(w_1 \cdot \vec{a}_1 + \vec{b}_1) + \vec{b}_2) - \vec{l}\right)^2$
$\vec{a}_{i+1} = w_i \cdot \vec{a}_i + \vec{b}_i$