



$$J(\theta) = -\frac{1}{m} \sum_{t=1}^m \sum_{k=1}^K \left[-y_k^{(t)} \log(h_{\theta}(x^{(t)}))_k - (1 - y_k^{(t)}) \log(1 - (h_{\theta}(x^{(t)}))_k) \right]$$