$$P(y = 1|x)$$
$$= g(\theta^T x)$$
$$= \frac{1}{1 + e^{-\theta^T x}}$$

$$P(y = 0|x)$$
$$= 1 - g(\theta^T x)$$
$$= 1 - \frac{1}{1 + e^{-\theta^T x}}$$
$$= \frac{e^{-\theta^T} x}{1 + e^{-\theta^T} x}$$