Answer: We derive our estimate for α as suggested, then compute the using $\tilde{h}(x) = h(x)/\alpha$ we derive the new decision boundary corresponding to $\tilde{h}(x) = \frac{1}{2}$ by $h(x) = \frac{\alpha}{2} = \frac{1}{1+e^{-\theta^T x}}$, i.e. $\theta^T x = \log(\frac{\alpha}{2-\alpha})$. This means we can introduce $\tilde{\theta}$ where $\tilde{\theta}_0 = \theta_0 - \log(\frac{\alpha}{2-\alpha})$ to provide a decision boundary again with our old formula $\tilde{\theta}^T x = 0$.