

The relationship between logit and $z = W^T x + b$

Goal of Logistic regression is predicting probability of case as to variable x .

So if we say $\text{logit}(p)$ has linear relationship with prediction model $W^T x + b$, which is $\text{logit}(p) = b + W_1 x_1 + \dots + W_n x_n$,

we can convert $\text{logit}(p)$ to inverse function, which is sigmoid function, to get probability.