

The relationship between Logit and $Z = W^T X + b$

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

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.