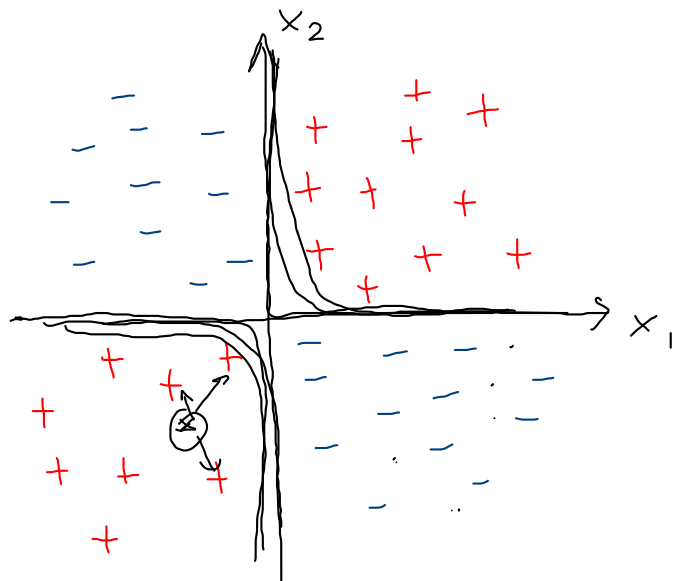


K-Nearest Neighbor  
 → QDA



$$\phi(x) = \begin{pmatrix} 1 \\ x_1 \\ x_2 \\ x_1 x_2 \end{pmatrix}$$

$$x = \begin{pmatrix} x_1 \\ x_2 \end{pmatrix}$$

$$\Rightarrow w^T x$$

$$\rightsquigarrow \phi(x) = \begin{pmatrix} 1 \\ x_1 \\ x_2 \\ x_1^2 \\ x_2^2 \\ x_1 x_2 \end{pmatrix}$$