SVM   (binary classification).

$$y = \begin{cases} 0 & v^T x > 0 \\ 1 & v^T x \le 0 \end{cases}$$

```
| 1   1
|
| 1      / 0
|       /
|_____/_____
|   0     0
|     0
```
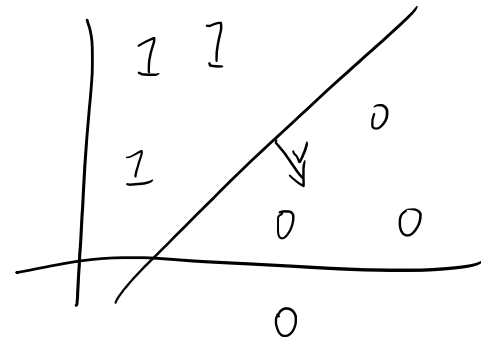
Argmax

$$y_0 = w_0^T x \quad , \quad y_1 = w_1^T x$$

$$V = W_0 - W_1$$

$$\text{prediction} = \begin{cases} 0 & w_0^T x > w_1^T x \iff (w_0 - w_1)^T x > 0 \\ 1 & w_0^T x \le w_1^T x \iff (w_0 - w_1)^T x \le 0 \end{cases}$$