$\{\}$
$\{\}$
$V =$
$\{v, \ldots, v_n\}$

$\subseteq$
$is subset of if every element of is also an element of. http://mathworld.wolfram.com/Subset.html Path \subseteq$
E

$\subsetneq$
$is a proper subset of if \subseteq$
B
B
A

$\times Product of two sets \times B$
A
$B A =$
$a, b, B =$
b, c
$A \times$
$B =$
$\{(a, b), (a, c), (b, b), (b, c)\}$
$E \subseteq$
$V \times$
V

$\in$
$Indicates that an object is element of a set. http://mathworld.wolfram.com/Element.html Vertex that's element of the set o$
F

$\notin$
$Indicates that an object is NOT element of a set. http://mathworld.wolfram.com/Element.html Vertex is not yet in the expl$

3
$information$
$Entropy$

Av_i

p, n

p, nA

A .
$Avp_i, n_i, i = 1, \ldots, v$

.

$+1-1$
1
$(\bar{x}_i, y_i), i = 1, \ldots, n\bar{x}_i \in^d y_i \in \{1, 1\} f(\bar{x})$

$y_i f(\bar{x}_i) > 0$

$\bar{w} \in^d$
w
$b \in \bar{w}$
$\bar{w}^T \bar{w} \bar{w}^T \bar{x}$
$\bar{w}1$
$\bar{w}^T \bar{x}_i + b) \{ \geq 1 for y_i = +1$
$\leq -1 for y_i = 1.$
$\frac{2}{||w||}$
$||w|| \bar{w}$
$\bar{w}^T \bar{x}_i + b) \{ \geq 1 for y_i = +1$
$\leq -1 for y_i = 1.$
$\frac{2}{||w||}$
$||w|| \bar{w}$
$_max_sep_hyperplane_with_margin Source http://wikipedia.org$
$\bar{w} b$
$\frac{1}{2} \bar{w}^T w$
$y_i(\bar{w}^T \bar{x}_i + b) \geq 1 (\bar{x}_i, y_i)$
$light$.
4
x