

hello, world

$$\sum_{i=1}^n a_i = 0$$

$$f(x)=x^{x^x}$$

$$G_R(D,A)=g(D,A)/H_A(D)$$

$$C_\alpha(T)=\sum_{t=1}^{|T|}N_tH_t(T)+\alpha|T|$$

$$H_t(T)=-\sum_k\frac{N_{tk}}{N_t}\log\frac{N_{tk}}{N_t}$$

$$C(T)=\sum_{t=1}^{|T|}N_tH_t(T)=-\sum_{t=1}^{|T|}\sum_{k=1}^KN_{tk}\log\frac{N_{tk}}{N_t}$$

$$C_\alpha(T)=C(T)+\alpha|T|$$

$$Gini(p)=\sum_{k=1}^Kp_k(1-p_k)=1-\sum_{k=1}^Kp_k^2$$

$$\min_{a < x < b} \{f(x)\}$$

$$f(x)=\sum_{m=1}^M c_m I(x\in R_m)$$

$$\sum_{x_i\in R_m} \left(y_i-f(x_i)\right)^2$$

$$\min_{j,s}[\min_{c_1}\sum_{x_i\in R_1(j,s)}(y_i-c_1)^2+\min_{c_2}\sum_{x_i\in R_2(j,s)}(y_i-c_2)^2]$$

$$Gini(D,A)=\frac{|D_1|}{|D|}Gini(D_1)+\frac{|D_2|}{|D|}Gini(D_2)$$

$$S^2=\frac{1}{n-1}\sum_{i=1}^n(X_i-\overline{X})^2$$