

## 21 April 2022 15:26

- A supervised ML algorithm, used for both regression and classification
- A non linear model - can give better performance even if features do not have good correlation with target attribute
- White box model: explainable technique

low entropy  $\left\{ \begin{array}{l} P = 0.95 \\ P' = 0.05 \end{array} \right.$

high entropy  $\begin{cases} p = 0.5 \\ p' = 0.5 \end{cases}$

Ex  $y = \frac{9}{14}$   $N = \frac{5}{14}$  Entropy =  $\sum_{i=1}^C - p \log p$

	$x_1$	$x_2$	$x_3$	$y$
Day	Outlook	Humidity	Wind	Play
D1	Sunny	High	Weak	No
D2	Sunny	High	Strong	No
D3	Overcast	High	Weak	Yes
D4	Rain	High	Weak	Yes
D5	Rain	Normal	Weak	Yes
D6	Rain	Normal	Strong	No
D7	Overcast	Normal	Strong	Yes
D8	Sunny	High	Weak	No
D9	Sunny	Normal	Weak	Yes
D10	Rain	Normal	Weak	Yes
D11	Sunny	Normal	Strong	Yes
D12	Overcast	High	Strong	Yes
D13	Overcast	Normal	Weak	Yes
D14	Rain	High	Strong	No

