

3.3

The hidden layer allows the network to.

- \* Create multiple decision boundaries
- \* Learn new features that are not present in the original input
- \* Combine them to form a non-linear boundary

Ex:-

→ Is  $x_1$  OR  $x_2$  active?

→ Is  $x_1$  AND  $x_2$  active?

Individually these are simple decisions

But together they capture the XOR structure