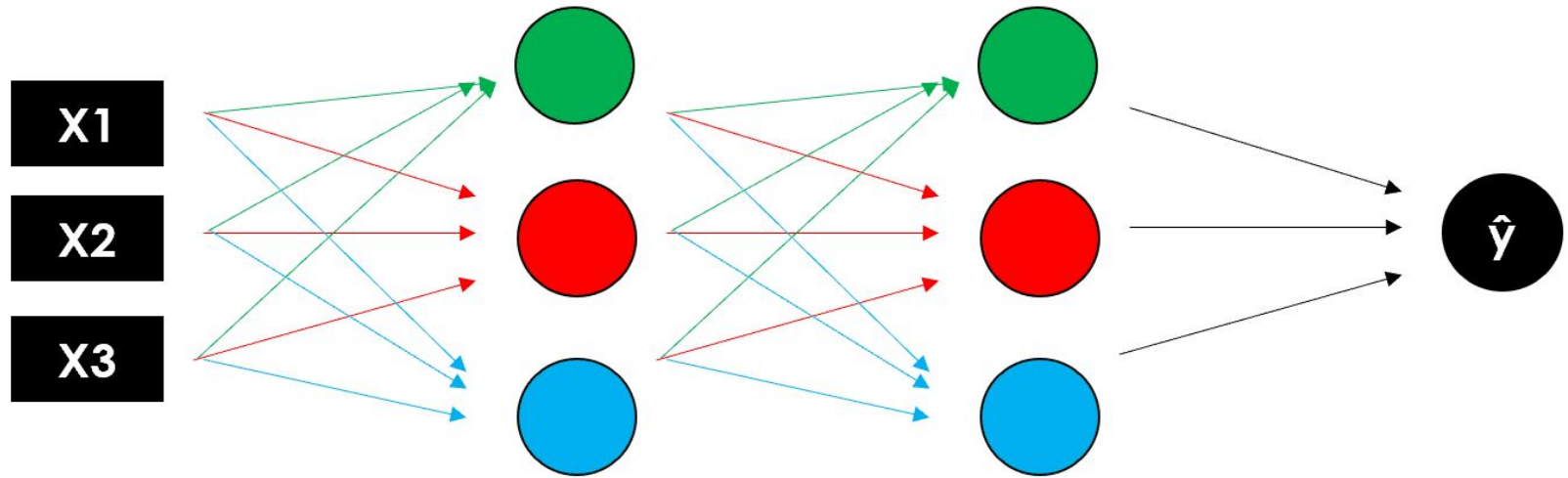# Decoding neural networks using Python

Presented by Ekta Shah

What are neural networks?

Neural networks - Explanation

- A neural network, or artificial neural network, is a type of computing architecture that is based on a model of how a human brain functions — hence the name "neural."
- Neural networks are made up of a collection of processing units called "nodes."
- These nodes pass data to each other, just like how in a brain, neurons pass electrical impulses to each other.

How do neural networks work?

- Neural networks are composed of a collection of nodes. The nodes are spread out across at least three layers. The three layers are:
- An input layer
- A "hidden" layer
- An output layer
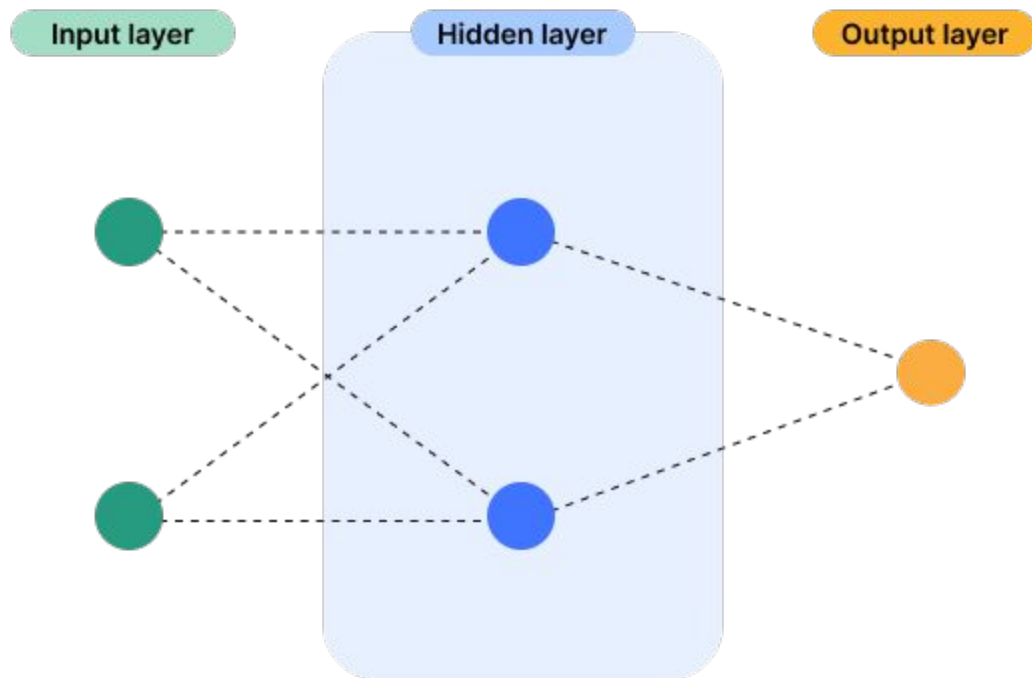
What are the types of neural networks?

Shallow neural networks usually have only one hidden layer

Deep neural networks have multiple hidden layers

Perceptron

Output layer

Multilayer perceptron

Input layer

Hidden layer

Output layer
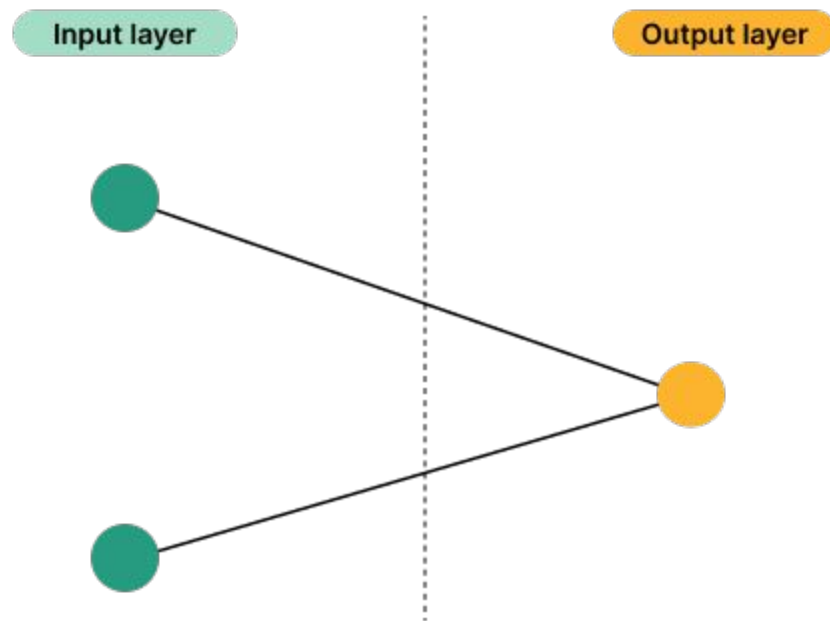
Code

#Initialising ANN

```
ann = tf.keras.models.Sequential()

ann.add(tf.keras.layers.Dense(units=6,activation="relu"))

ann.add(tf.keras.layers.Dense(units=6,activation="relu"))

ann.add(tf.keras.layers.Dense(units=1,activation="sigmoid"))
```