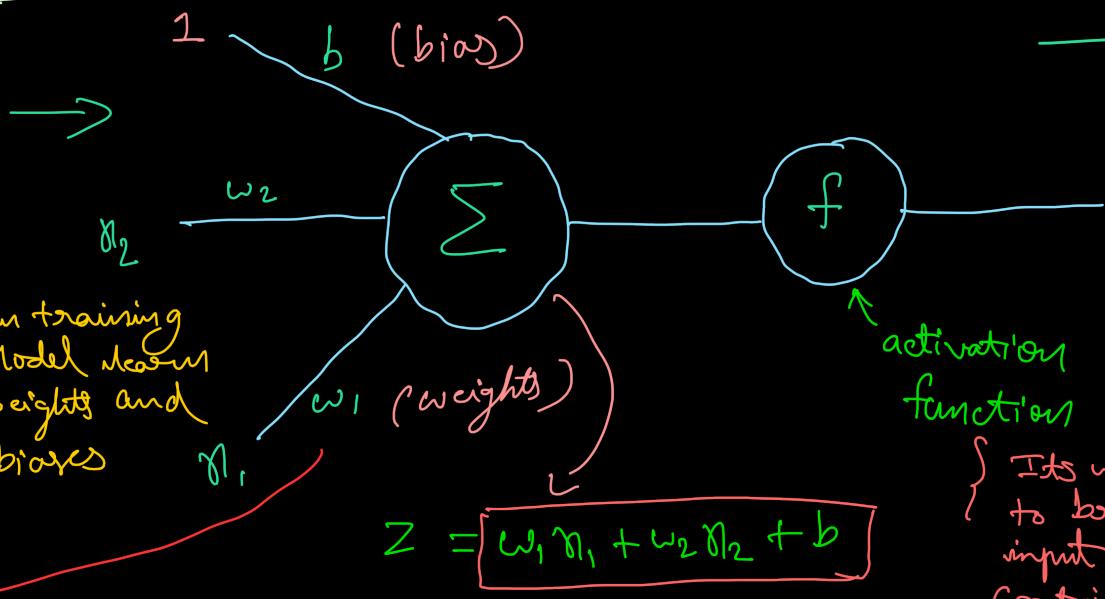


What is Perception? Perception vs Neuron

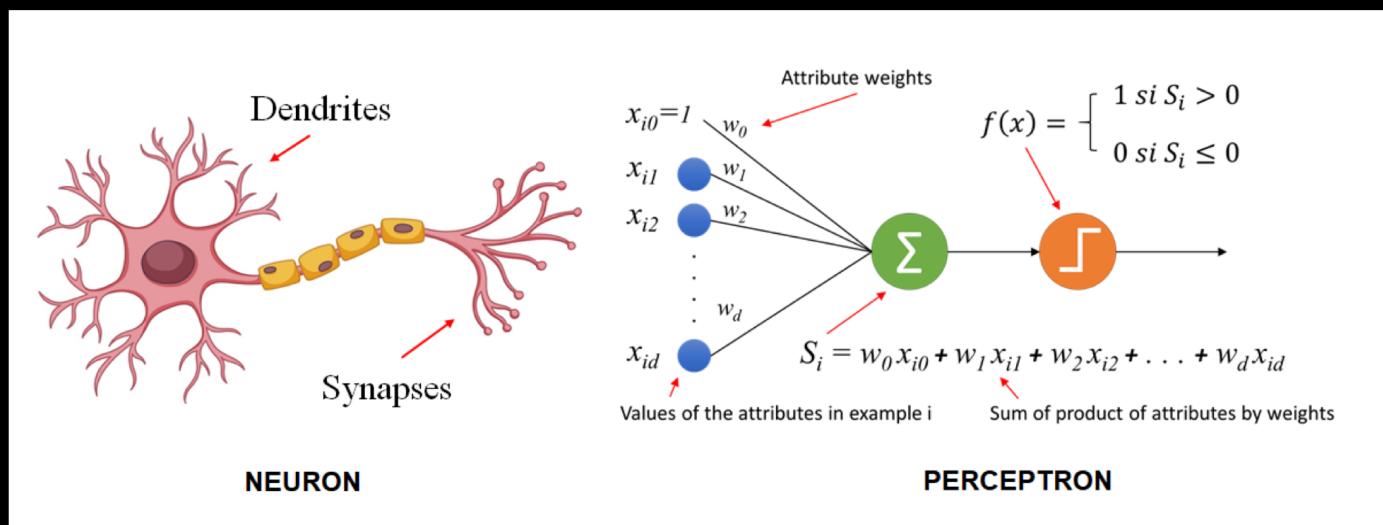
↳ Algorithm \rightarrow Supervised ML

{-Algorithm
-Mathematical Model
-function}

Perception design \rightarrow



Neuron vs Perception

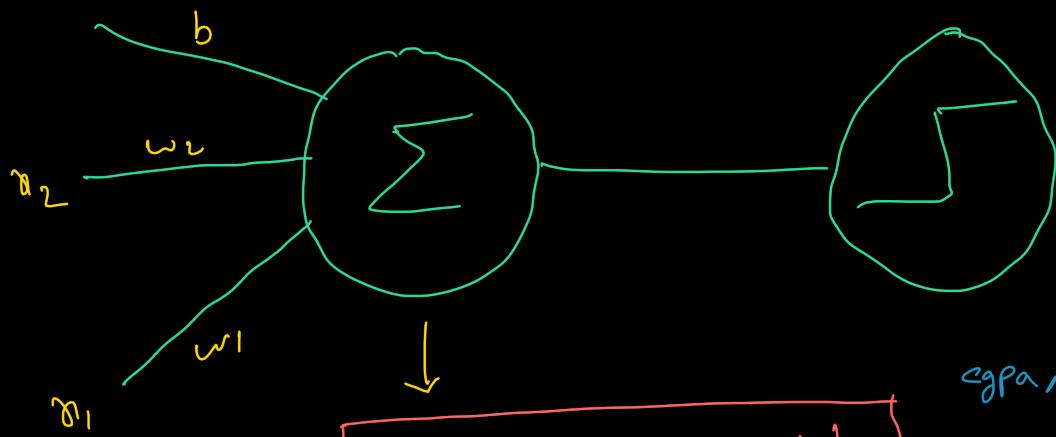


Different

- 1) Neuron is complex
- 2) Processing is different, No idea what is going on inside cell nucleus.
- 3) Neuroplasticity is there in Neuron ...

* Weights tells us about feature importance

Geometric Intuition



$$Y = f(Z) = \begin{cases} 1 & Z \geq 0 \\ 0 & Z < 0 \end{cases}$$

$\omega_1 \Rightarrow A \quad \omega_2 \Rightarrow B \quad b \Rightarrow C$

$x_1 \Rightarrow X \quad x_2 \Rightarrow Y$

then $Ax + By + C$ Eqn of line

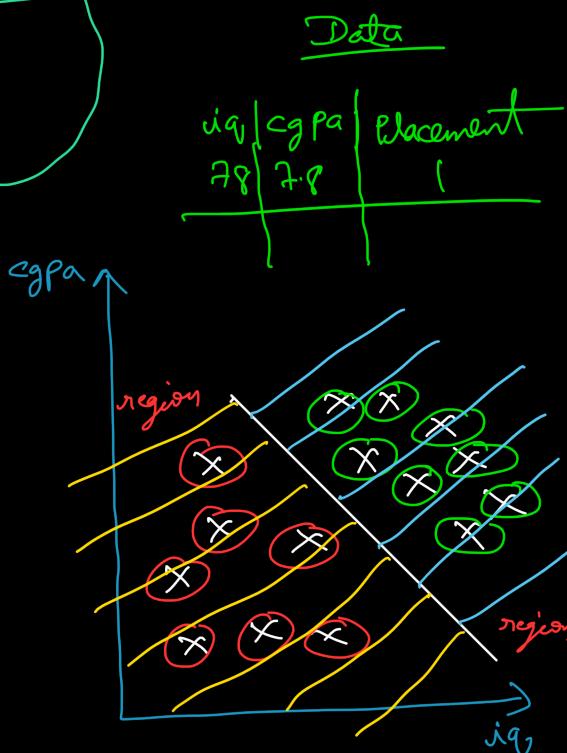
$$Ax + By + C \geq 0 \rightarrow \text{region}$$

$$Ax + By + C < 0$$

* Perceptron is nothing but line which create region

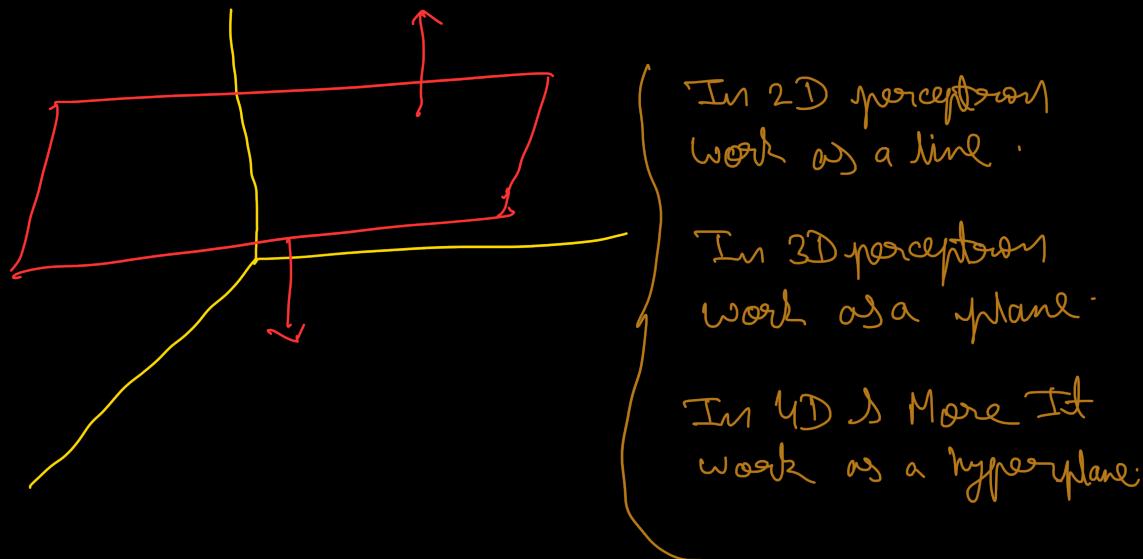
* Perceptron is a binary classifier

v_1	$\{ \text{cgpa} \}$	$\{ 12^{\text{th}} \text{ Marks} \}$	$\{ \text{Placement} \}$
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$$f(z) = \omega_1 x_1 + \omega_2 x_2 + \omega_3 x_3 + b$$

$$[Ax + By + Cz + b] \rightarrow \text{Eqn of plane}$$



- * Perception work in linear or sort of linear data : Data which we can separate using st line.
- * Perception accuracy in non-linear data is very very less.

