Session #2

ARCHITECTURAL INTELLIGENCE

DigitalFUTURES Summer 2022
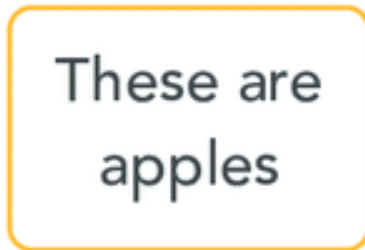
WHAT IS SUPERVISED LEARNING?

supervised learning refers to a category of methods in which we teach/train a machine learning algorithm using data, while guiding the algorithm model with **labels associated with the data**

WHAT IS SUPERVISED LEARNING?

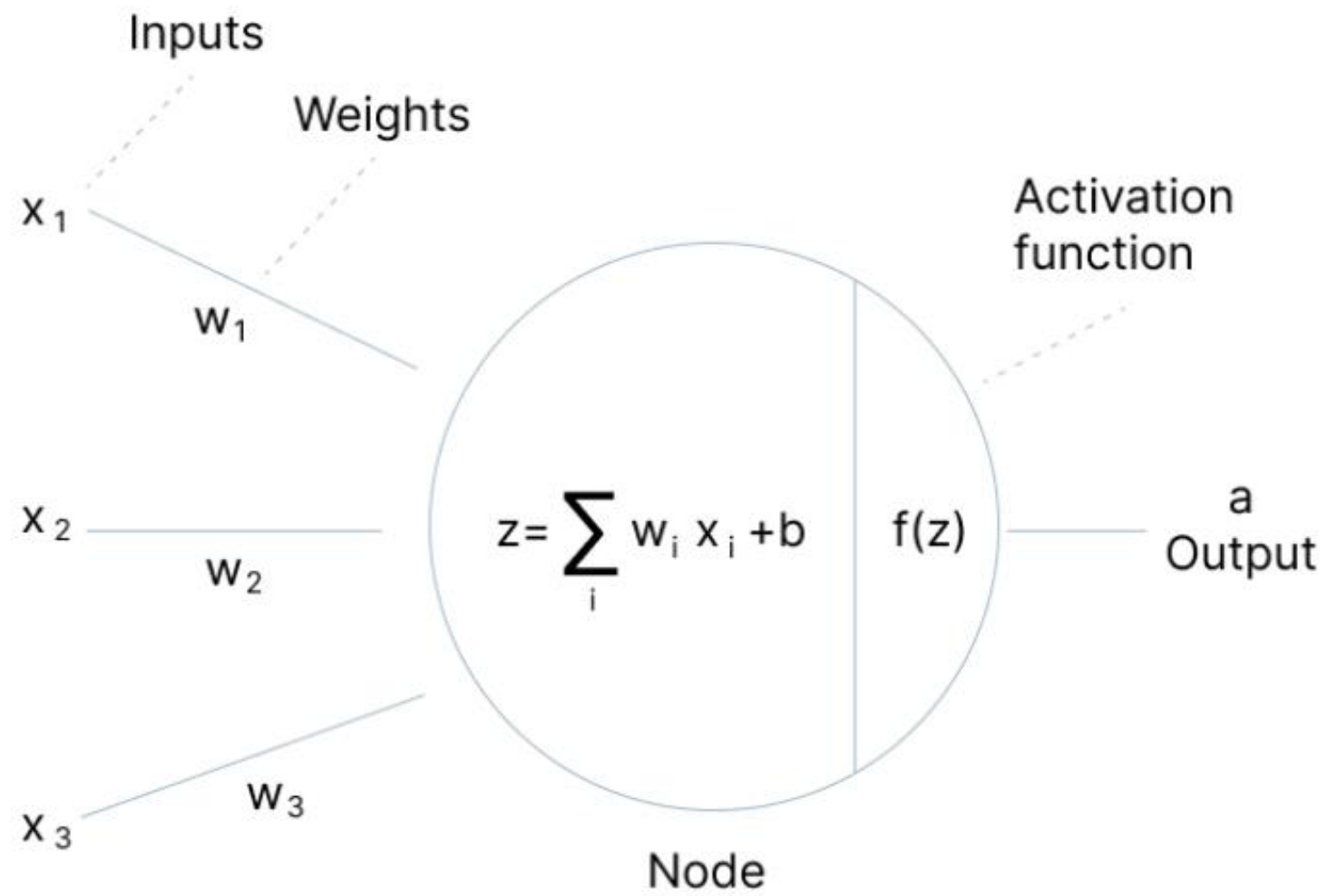# TRAINING SUPERVISED LEARNING MODELS:

- BACKPROPAGATION ALGORITHM

- RESILIENT BACKPROPAGATION ALGORITHM

- EVOLUTIONARY ALGORITHM

- LEVENBERG-MARQUARDT ALGORITHM

WHAT'S ACTIVATION FUNCTION?

The activation function defines the output of a neuron given a set of inputs.

Activation function decides whether to activate that neuron (ON) or deactivate it (OFF)

Inputs

Weights

x_1

w_1

Activation function

x_2

w_2

$z = \sum_i w_i x_i + b$

$f(z)$

a
Output

x_3

w_3

Node

ARCHITECTURAL INTELLIGENCE

EXAMPLES

write a code that can predict the name of a space

CODE_3.GH

EXAMPLES
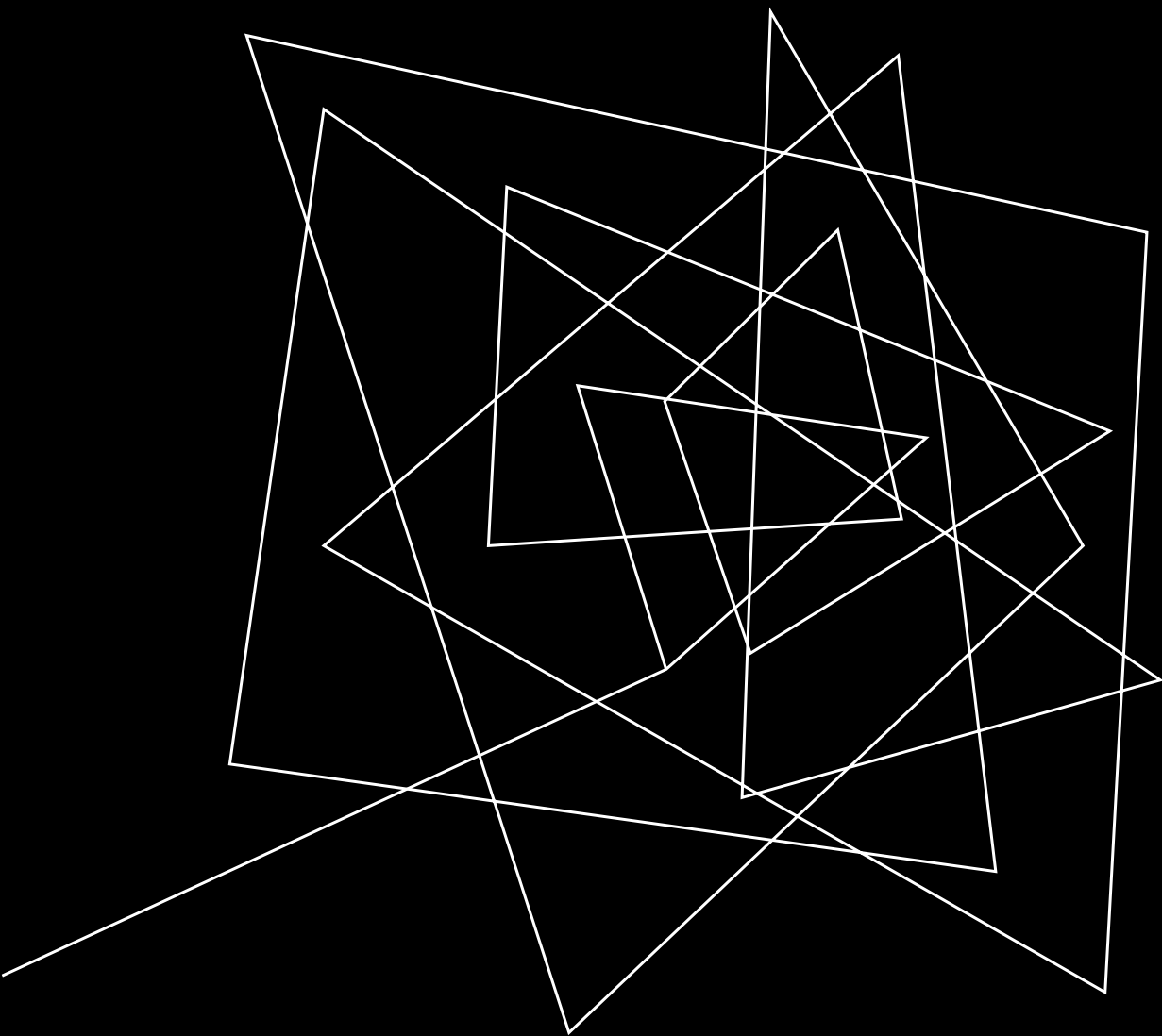
write a code that can predict similar plan from a layout

CODE_4.GH

WHAT HAVE WE LEARNED TODAY?

HOW TO EMBED IT IN ARCHITECTURE?

THANK YOU ☺