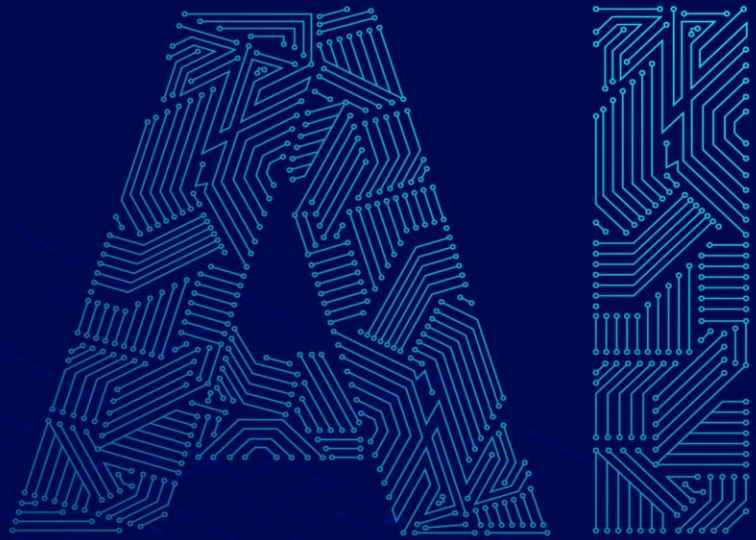




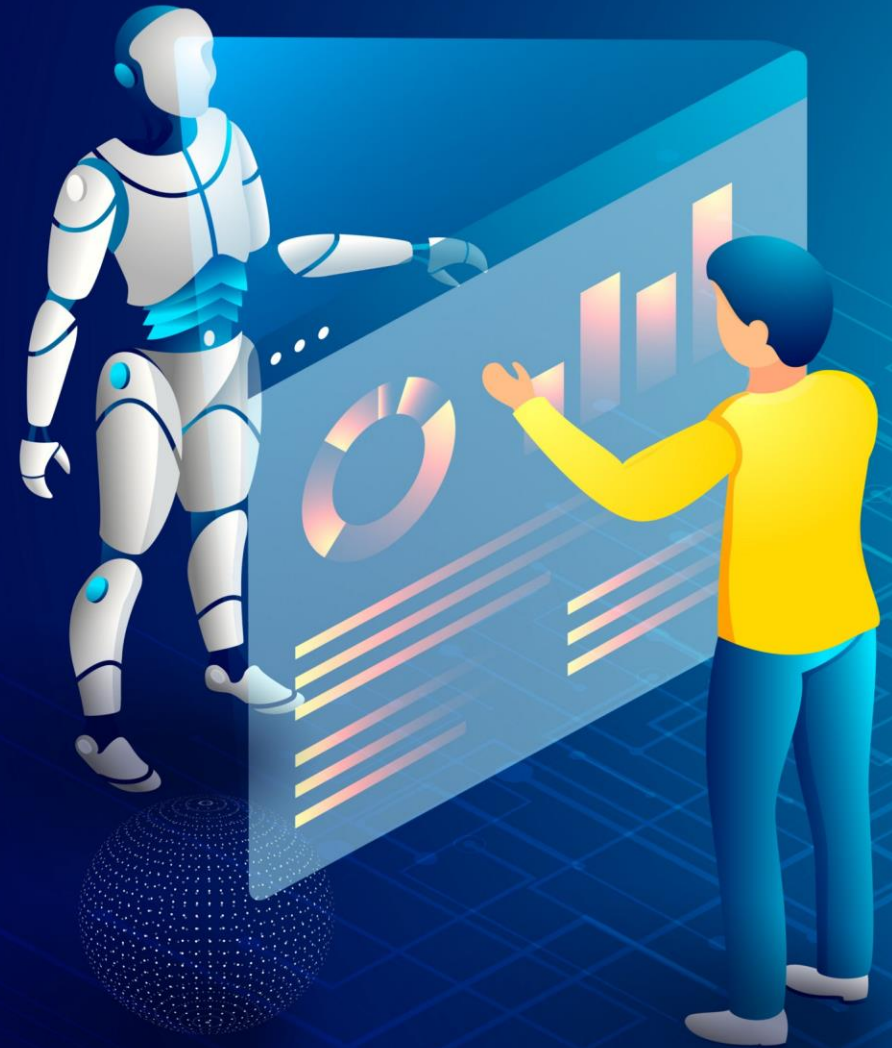
# From AI to DL

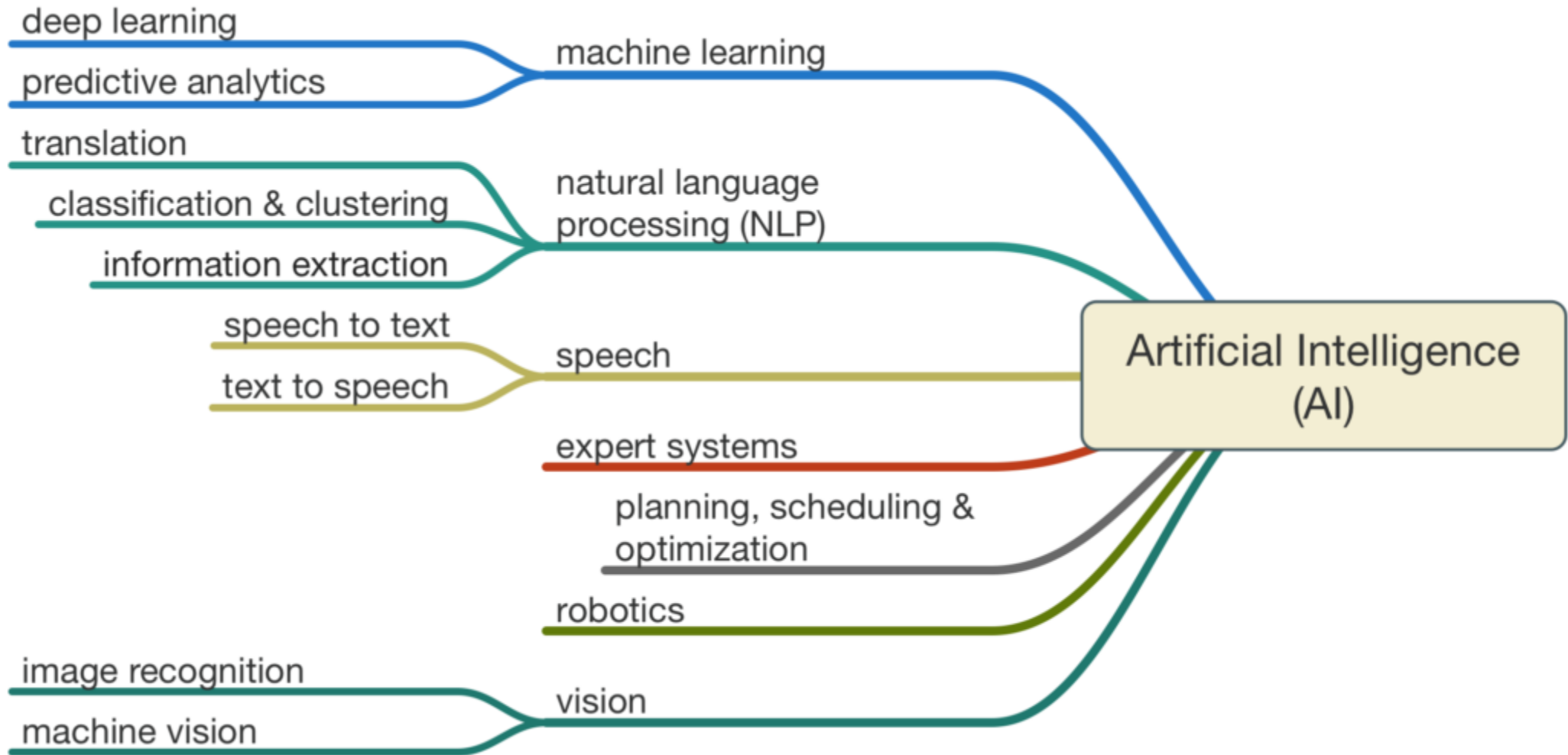
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BY MXK

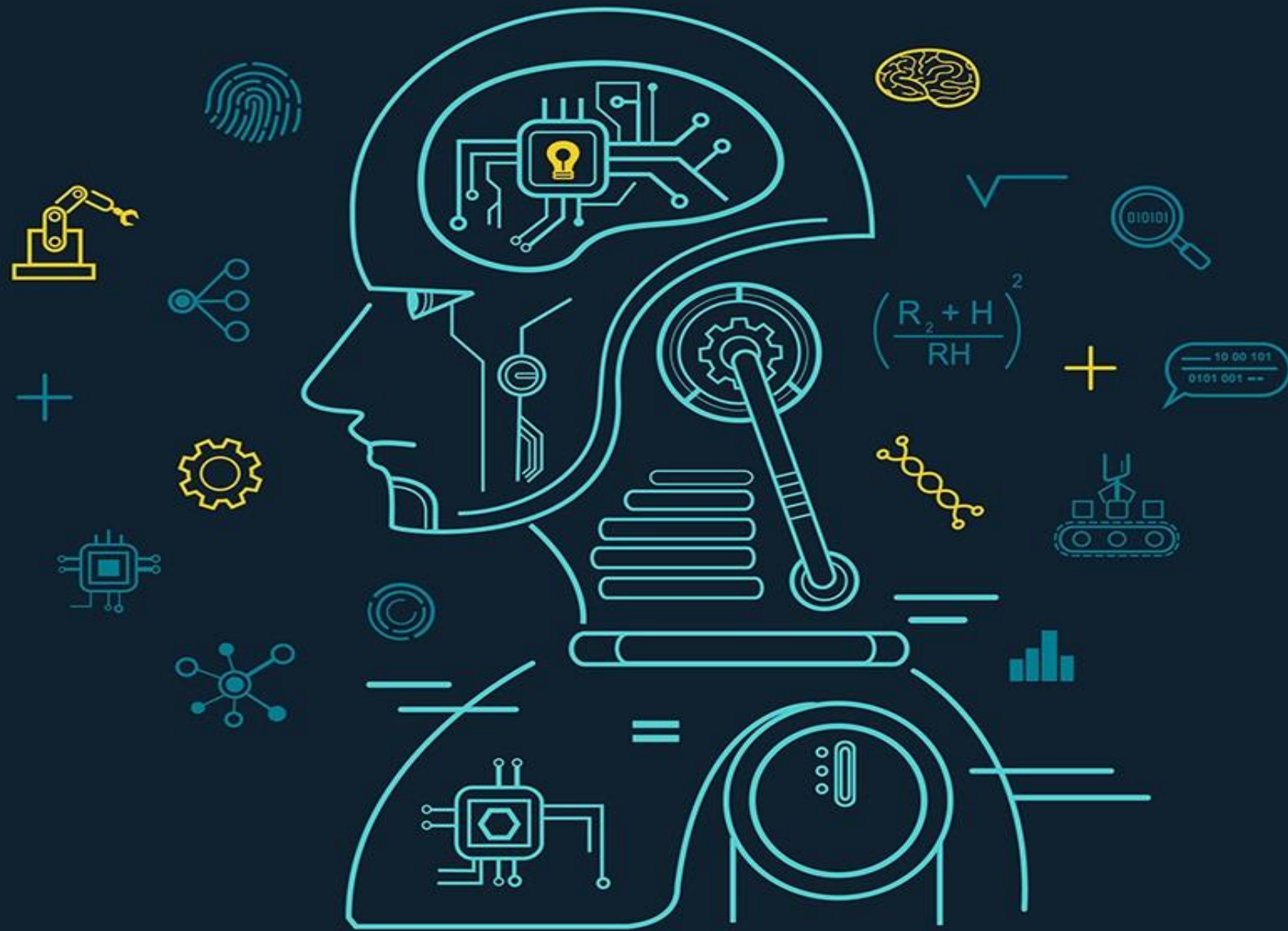


ARTIFICIAL INTELLIGENCE

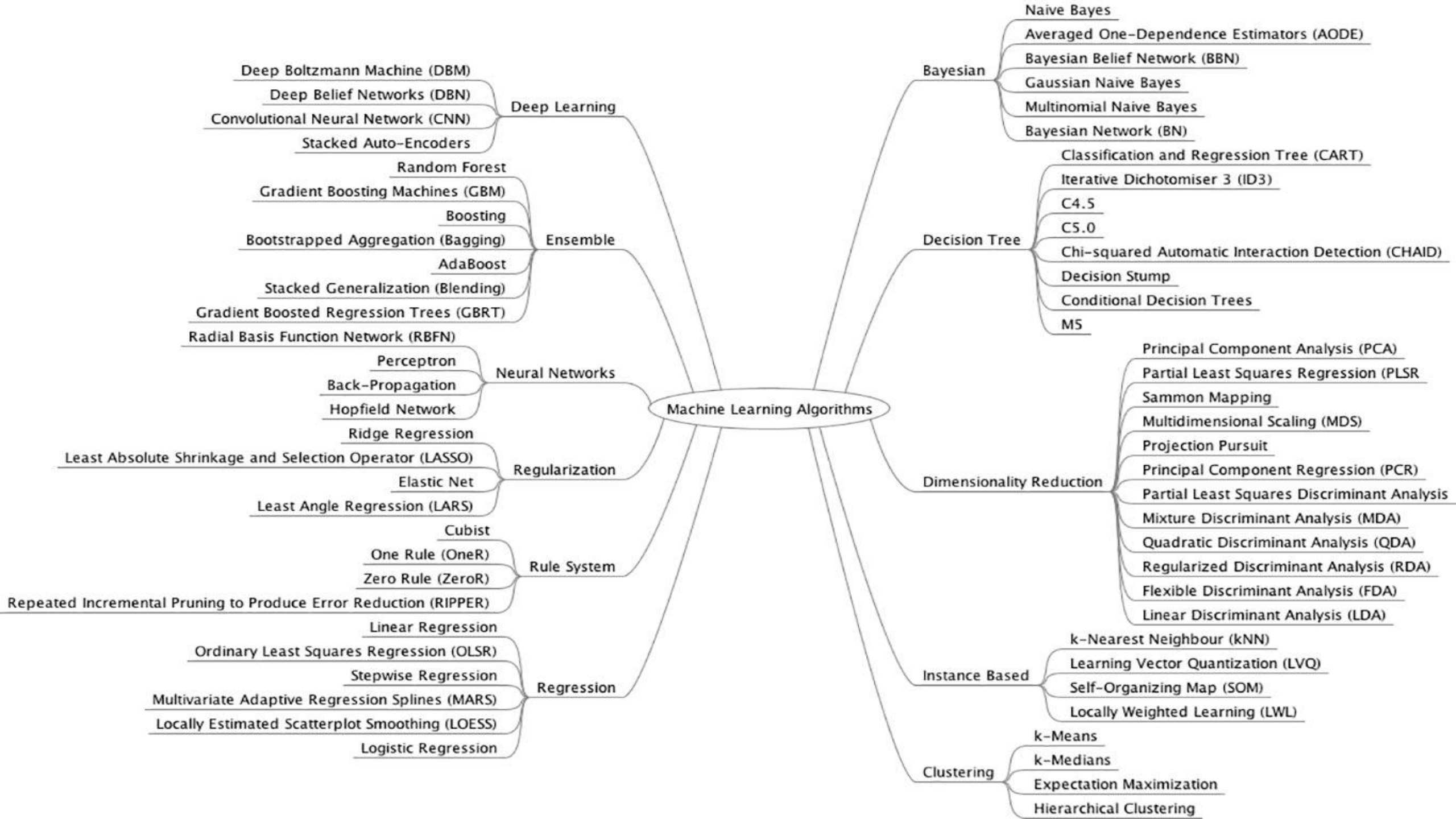




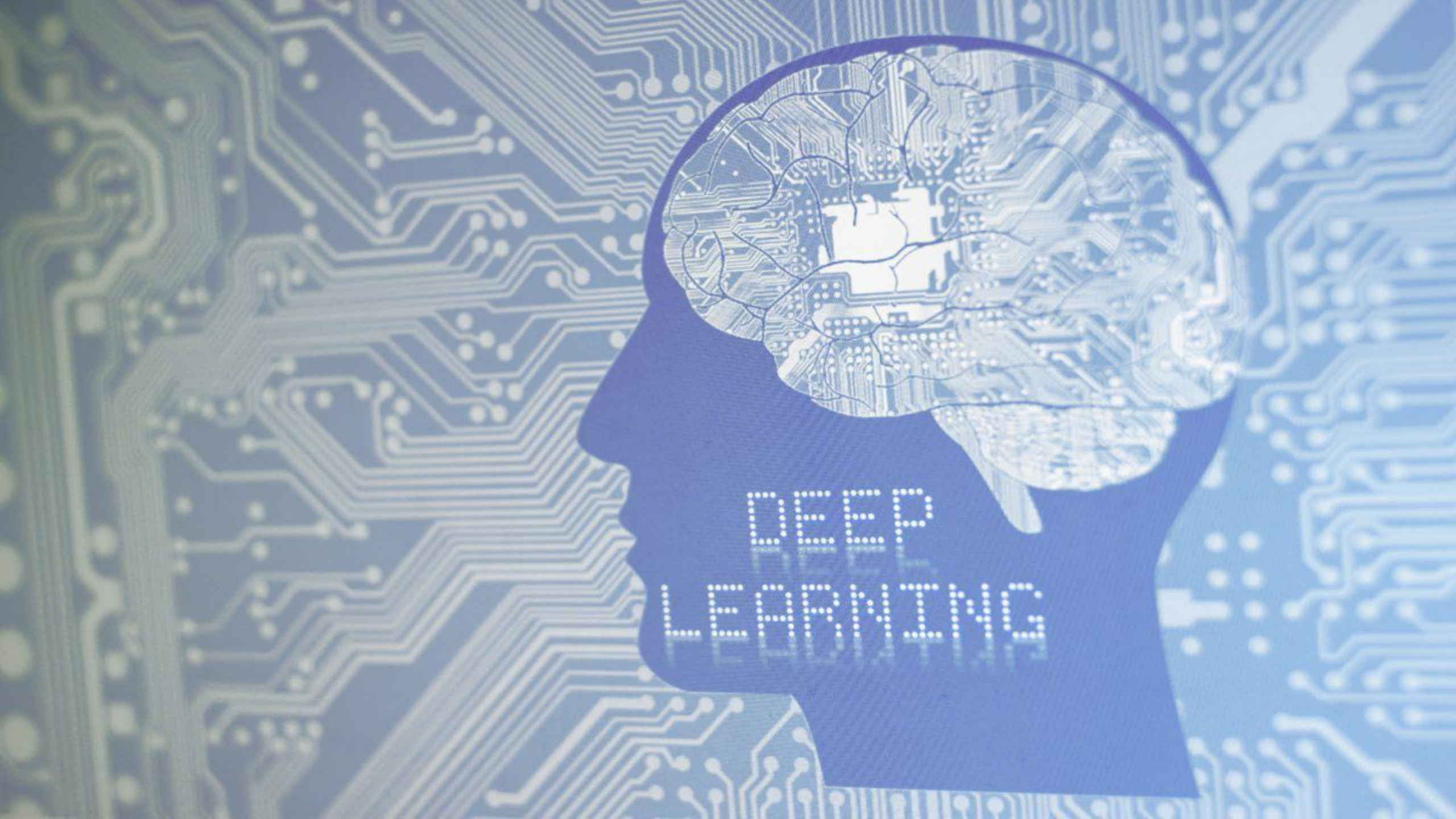




# MACHINE LEARNING







DEEP  
LEARNING

White Papers

## Neural Networks

Understanding Neural Networks

Loss Functions

Activation Functions

Weight Initialization

Vanishing / Exploding Gradient Problem

## Architectures

Feedforward neural network

Autoencoder

Convolutional Neural Network (CNN)

Pooling

Recurrent Neural Network (RNN)

LSTM

GRU

Transformer

Encoder

Decoder

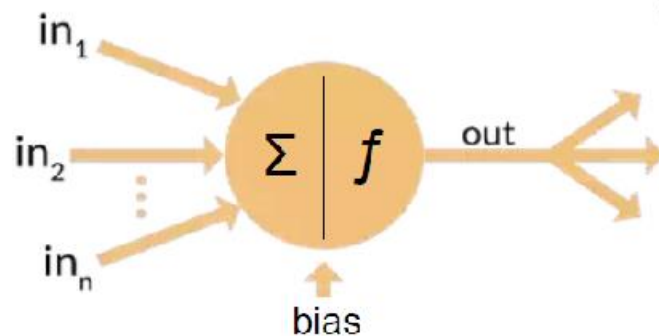
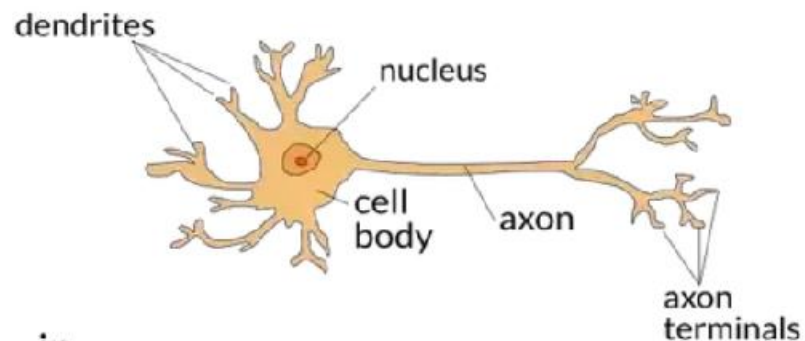
Siamese Network

Attention

Generative Adversarial Network (GAN)

Evolving Architectures / NEAT

Residual Connections



## Training

SGD

Momentum

Adam

AdaGrad

AdaDelta

Nadam

RMSProp

Optimizers

Learning Rate Schedule

Batch Normalization

Batch Size Effects

Regularization

Multitask Learning

Transfer Learning

Curriculum Learning

Early Stopping

Dropout

Parameter Penalties

Data Augmentation

Adversarial Training

## Tools

Important Libraries

Awesome Deep Learning

Huggingface Transformers

Tensorflow

PyTorch

Tensorboard

MLFlow

Even More



The background is a complex, abstract network of interconnected nodes and lines. The nodes are represented by small circles in various shades of brown, tan, and grey. The lines connecting them are thin and light-colored, creating a dense, web-like pattern across the entire image. The overall aesthetic is modern and digital.

Kahoot Time 😊