

# Artificial Intelligence

## **WHAT IS AI?**

Artificial Intelligence is the ability of a computer to perform tasks that typically require some sort of intelligence to complete. These systems use algorithms, statistical models, and other techniques to make predictions or decisions about a problem or situation.

## **MACHINE LEARNING TYPES**

- Supervised Learning
- Unsupervised Learning
  - Deep Learning
- Reinforcement Learning
- Transfer Learning

## **A NEURAL NETWORK**

A Neural network mimics the way that biological neurons signal to one another. They consist of artificial neurons that are connected via layers. The input layer takes in multiple inputs and the output layer produces a single output. The hidden layer(s) in between can find complex patterns (a specific shape for example) in data.

Mapping predictions to a more manageable range, such as 0 to 1, simplifies the interpretation and useability of the result.

To enhance the accuracy of the Network, its output is compared to the desired output, and adjustments are made to the model's parameters accordingly.

## **AI EXAMPLES**

- Computer Vision
- Natural Language Processing (NLP)
- Voice Recognition
- Image Generation
- ...

## **AGI**

Artificial General Intelligence (AGI) represents the next step in the evolution of AI, possessing computational capabilities far beyond that of human intelligence.