

What Is Machine Learning?

Machine learning (ML) is a type of artificial intelligence that allows computers to learn patterns from data instead of being explicitly programmed.

In simple terms, an ML model studies examples — such as images, text, or numbers — and then makes predictions or decisions based on what it has learned.

Machine learning powers tools like voice assistants, spam filters, and recommendation systems. The more data the model sees, the better it becomes at recognising patterns.

Example

Imagine teaching a model to recognise cats in photos:

- You show it thousands of images labelled “cat” and “not cat”.
- It analyses patterns (shapes, colours, edges).
- When shown a new picture, it predicts whether there’s a cat in it.

Why It Matters

Machine learning helps automate complex tasks and enables smarter products — from predictive text to self-driving cars.