Introduction to Machine Learning

Machine Learning (ML) is a subset of Artificial Intelligence (AI) that focuses on creating systems that learn from data and improve over time without being explicitly programmed.

ML algorithms are categorized into:

1. Supervised Learning: Uses labeled data to train models. Example: Predicting house prices based on features like size and location.

2. Unsupervised Learning: Identifies patterns in unlabeled data. Example: Customer segmentation in marketing.

3. Reinforcement Learning: Learns by interacting with an environment. Example: Training robots to walk.

ML has applications in healthcare, finance, autonomous vehicles, and more.

Key Terms:

- Dataset: Collection of data used for training/testing.

- Model: A mathematical representation of a system.