

Title: Introduction to Machine Learning

Machine learning is a field of artificial intelligence that focuses on building systems capable of learning from data. The two primary types of machine learning are supervised and unsupervised learning.

- **Supervised learning** involves training a model on labeled data, where the correct output is known.
- **Unsupervised learning**, on the other hand, involves using data that does not have labeled outputs, and the goal is to identify patterns within the data.

Another critical category is **reinforcement learning**, where an agent learns by interacting with its environment to maximize a reward.

Key Algorithms:

- Decision Trees
- Support Vector Machines
- Neural Networks

Applications of machine learning include natural language processing, image recognition, and autonomous systems.