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Introduction & Basic Concepts

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"Field of study that gives computers the ability to learn without being explicitly programmed"

— Arthur Samuel (1959)

★ **Supervised Learning**

→ Task of learning a function that maps an input to an output based on example input-output pairs.

Regression

→ Problem when y (output) is continuous.

Classification

→ Problem when y (output) is discrete.

★ **Unsupervised Learning**

→ Learning from data without example input-output pairs

Clustering

→ Grouping a set of objects in such a way that objects in the same group are more similar to each other.

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★ Reenforcement Learning

↳ Software agents ought to take actions in an environment in order to maximize the notion of cumulative reward.