Supervised Learning

- Labeled training data
- Explicit target variables
- Learning from examples
- Ground truth labels

Unsupervised Learning

- Unlabeled data only
- No target variables
- Discover hidden patterns
- Self-directed insights

Three Main Categories of Unsupervised Learning

Clustering

Group similar data points together

Dimensionality Reduction

Reduce feature space complexity

Anomaly Detection

Identify unusual patterns