

Homework 1 Presentation

Brandon Hosley

University of Illinois - Springfield

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Overview

1 Supervised and Unsupervised Learning

2 Hastie and Tibshirani

Supervised and Unsupervised Learning

Q: What's the difference between Supervised and Unsupervised learning?

Supervised and Unsupervised Learning

Supervised Learning

- Labeled Data

Unsupervised Learning

- Unlabeled Data

Remark

Supervised learning requires labeled or pre-classified data.

Caution!

Labeled data often comes with a greater up-front cost, typically through manual classification.

Supervised and Unsupervised Learning

Supervised Learning

- Labeled Data
- Known Features

Unsupervised Learning

- Unlabeled Data
- Unknown Features

Remark

Labeled data implies that the feature of interest is already known.

Examples

- Training a model to classify pictures of animals
- Training a model for handwriting recognition

Supervised and Unsupervised Learning

Supervised Learning

- Labeled Data
- Known Features
- Leverages Experience

Unsupervised Learning

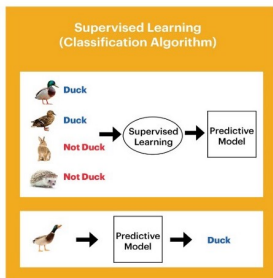
- Unlabeled Data
- Unknown Features
- Discovers New Patterns

Remark

Supervised and Unsupervised Learning

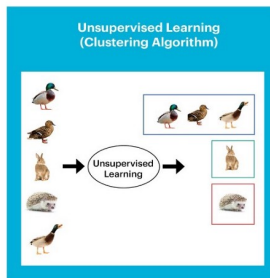
Supervised Learning

- Labeled Data
- Known Features
- Leverages Experience



Unsupervised Learning

- Unlabeled Data
- Unknown Features
- Discovers New Patterns



Western Digital.

For Example:

Hastie and Tibshirani