1

Introduction to Machine Learning

Basic concepts

Chapter outline

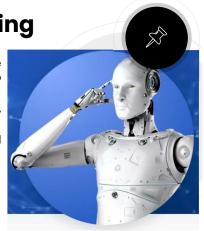1. What is Machine Learning
2. Basic tools of Machine Learning

1. What is machine learning

You'll find it hard to **describe** your friend's face accurately enough for another person to **recognize it** in a crowd.

But if you show him a few **photos** of your friend, he'll immediately see the **characteristic traits**.

As they say, "A picture is worth a thousand words".

1. What is machine learning (next)

Similarly, you don't become a **professional swimmer** by just being told **how to swim**.

The best way to learn is:

- to give some **initial theoretical notions**;
- then let the learner **practice**;
- and **learn** from his own **experience** and **failures**.

2. Basic tools of Machine Learning

cloud-based and robust machine learning software application

Shogun: open-source machine learning software library

open-source library provides a Python interface for artificial neural networks

open-source machine learning framework

open-source distributed linear algebra framework and mathematically expressive Scala DSL

Amazon Machine Learning

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Keras
A deep learning library

PyTorch

Apache mahout

Machine Learning Tools

jupyter

TensorFlow

colab

learn
Machine Learning with Scikit-Learn

Machine Learning with WEKA

data mining workbench that includes machine learning algorithms

Library for performing machine learning-related tasks.

Free software, open standards, and web services for interactive computing across all programming languages

open-source libraries used to train and build both machine learning and deep learning models

free cloud platform for machine learning and data science

16