

Core Skills 101

Introduction to Machine Learning

Objectives

- Basic Concepts of Machine Learning
- Types of machine learning algorithms (supervised, unsupervised, reinforcement learning)
- Model Selection and Evaluation

Course content

1. [Introduction to ML](#)
2. [Supervised vs Unsupervised Learning](#)
3. [Classification in ML](#)
4. [Regression in ML](#)
5. [Clustering in ML](#)
6. [Dimension Reduction in ML](#)
7. [Machine Learning Algorithms](#)
8. Reinforcement Learning

Practice Work

- [How models work](#)
- [Basic data exploration](#)
- [Our first machine-learning model](#)
- [Model validation](#)
- [Underfitting & Overfitting](#)
- [Random forests](#)

Exercise: <https://www.kaggle.com/code/alexisbcook/titanic-tutorial>

More resources:

1. Machine learning algorithms: <https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-are-machine-learning-algorithms>
2. Machine learning basics: <https://www.w3schools.com/ai/default.asp>