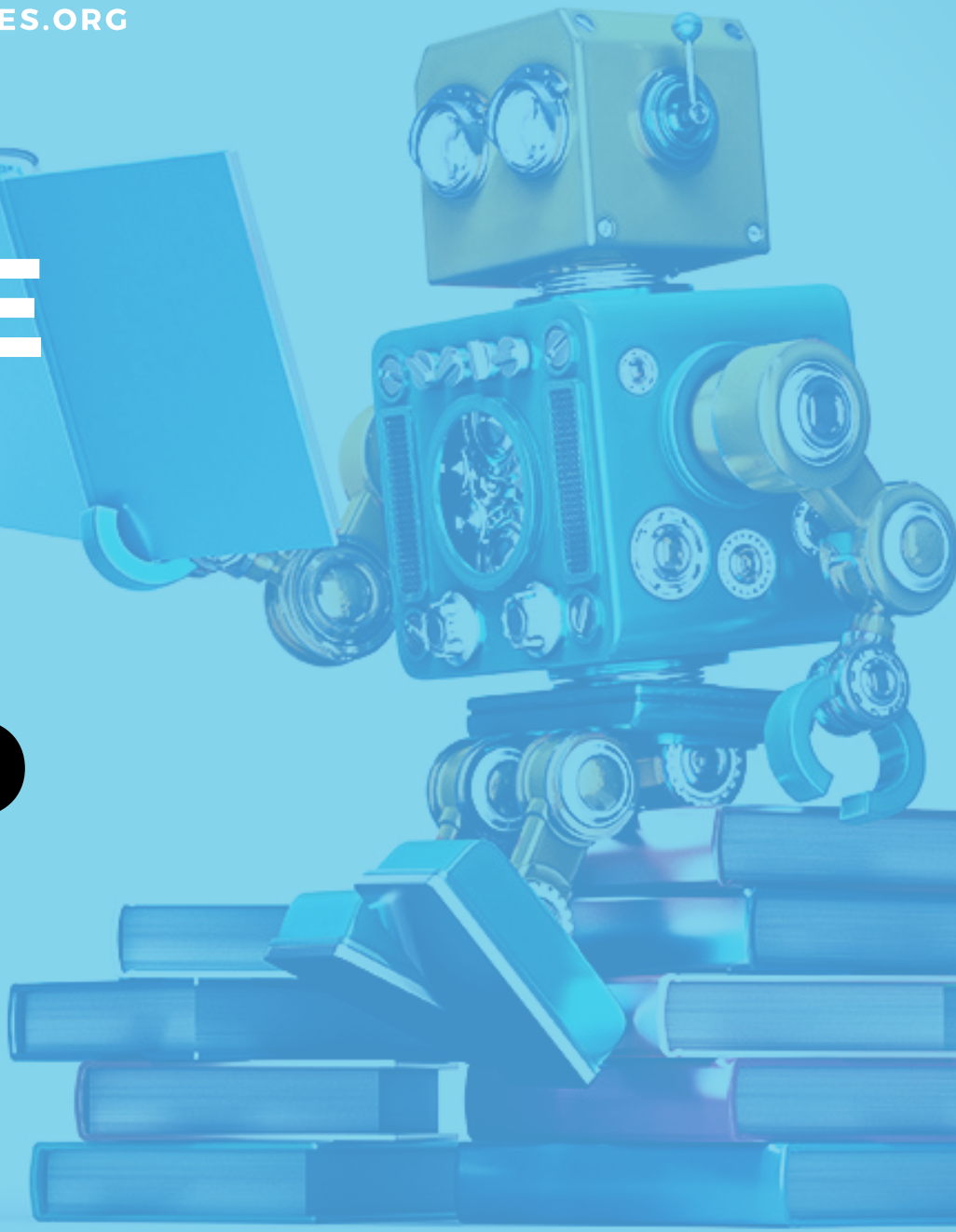
DEV-ES.ORG

MACHINE LEARNIG GETTING STARTED

Juliano Petronetto



ABOUT ME

JULIANO PETRONETTO

SOFTWARE DEVELOPER

github.com/petronetto

petronetto.com.br

juliano@petronetto.com.br

YOU WILL LEARN

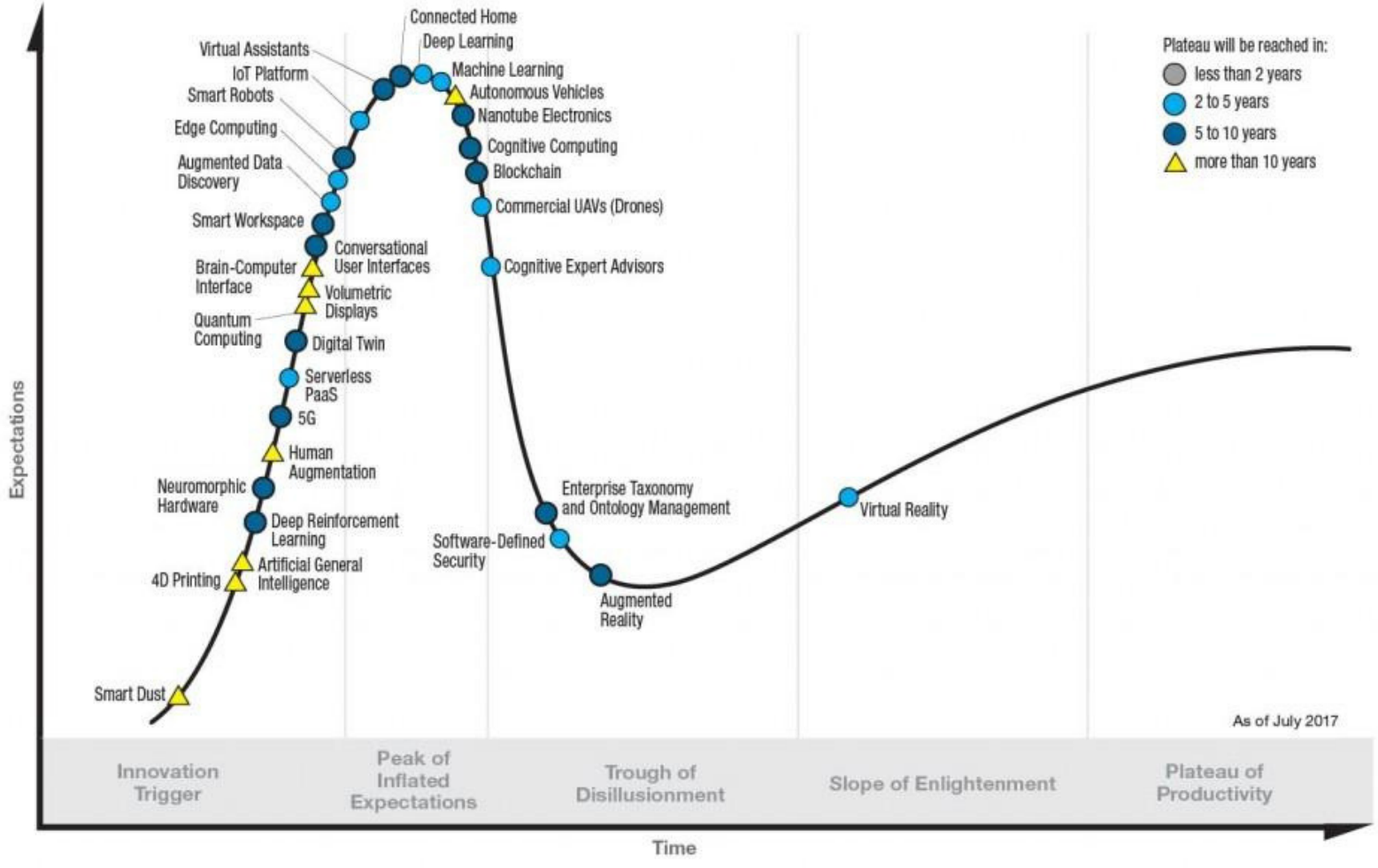
- Why Machine Learning
- What you need know
- How start
- Basic tools
- Some code examples

WHY MACHINE LEARNING?

Artificial Intelligence is the New Electricity

- Andrew Ng

Gartner Hype Cycle for Emerging Technologies, 2017



gartner.com/SmarterWithGartner

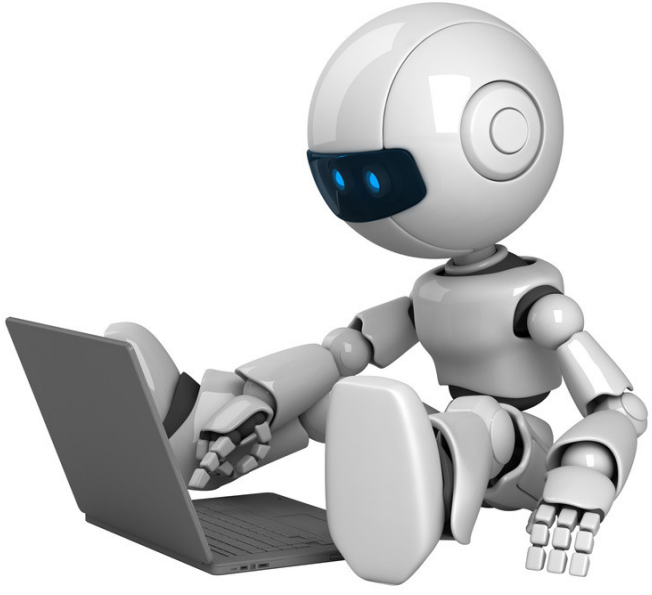
Source: Gartner (July 2017)

Gartner

The biggest companies in the world do not invest billions in hypes and fads.

The investment in machine learning is a natural evolution in technology. The features being demanded in today's software are not CRUD operations and simple visualizations. They are features that resemble 'reasoning' and automated decision making such that end users are free to do what humans are naturally good at; being creative and working on strategy.

Sean McClure



REQUIRED SKILLS

01 Basic math

02 Programming Fundamentals

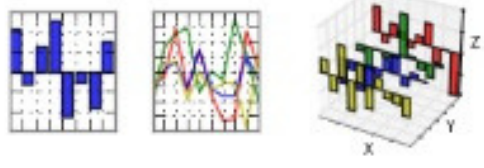
03 Good english reading


IT'S NOT
ROCKET SCIENCE

OPEN SOURCE TOOLS

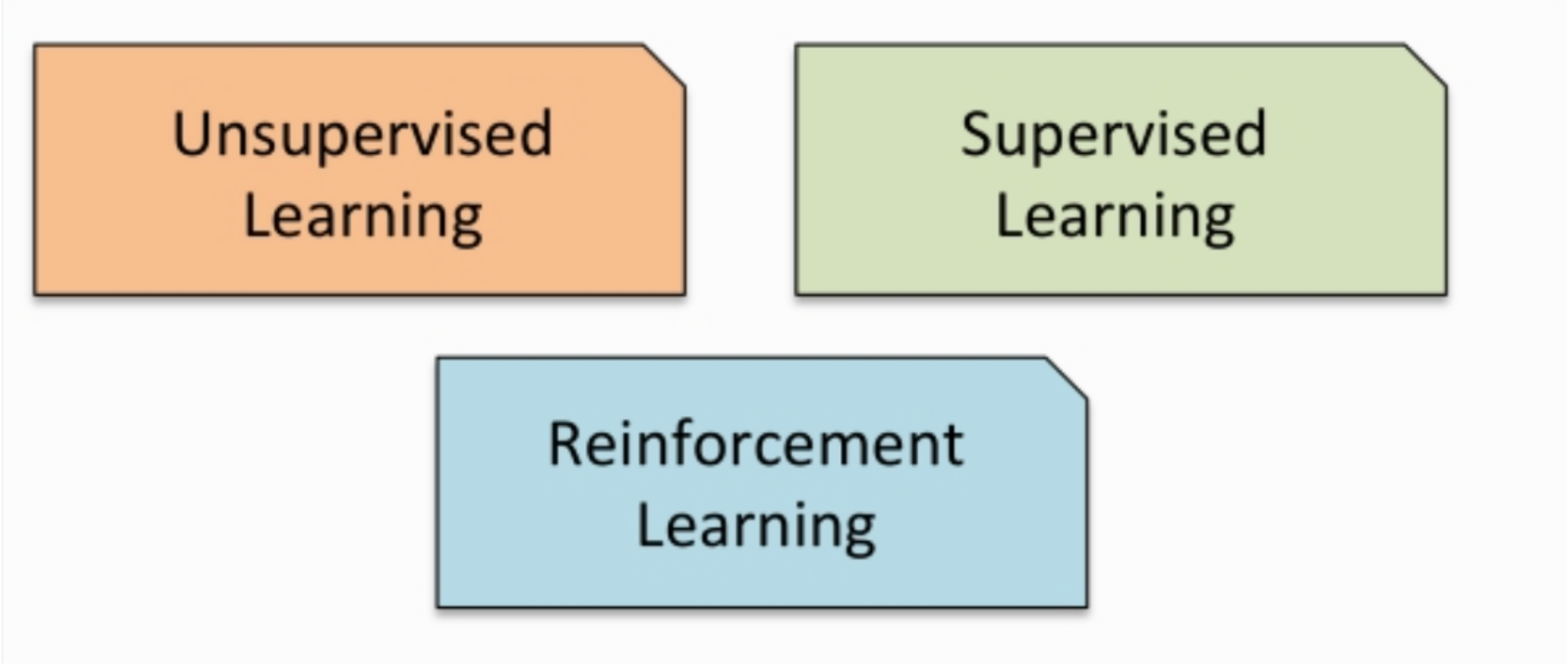
pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$

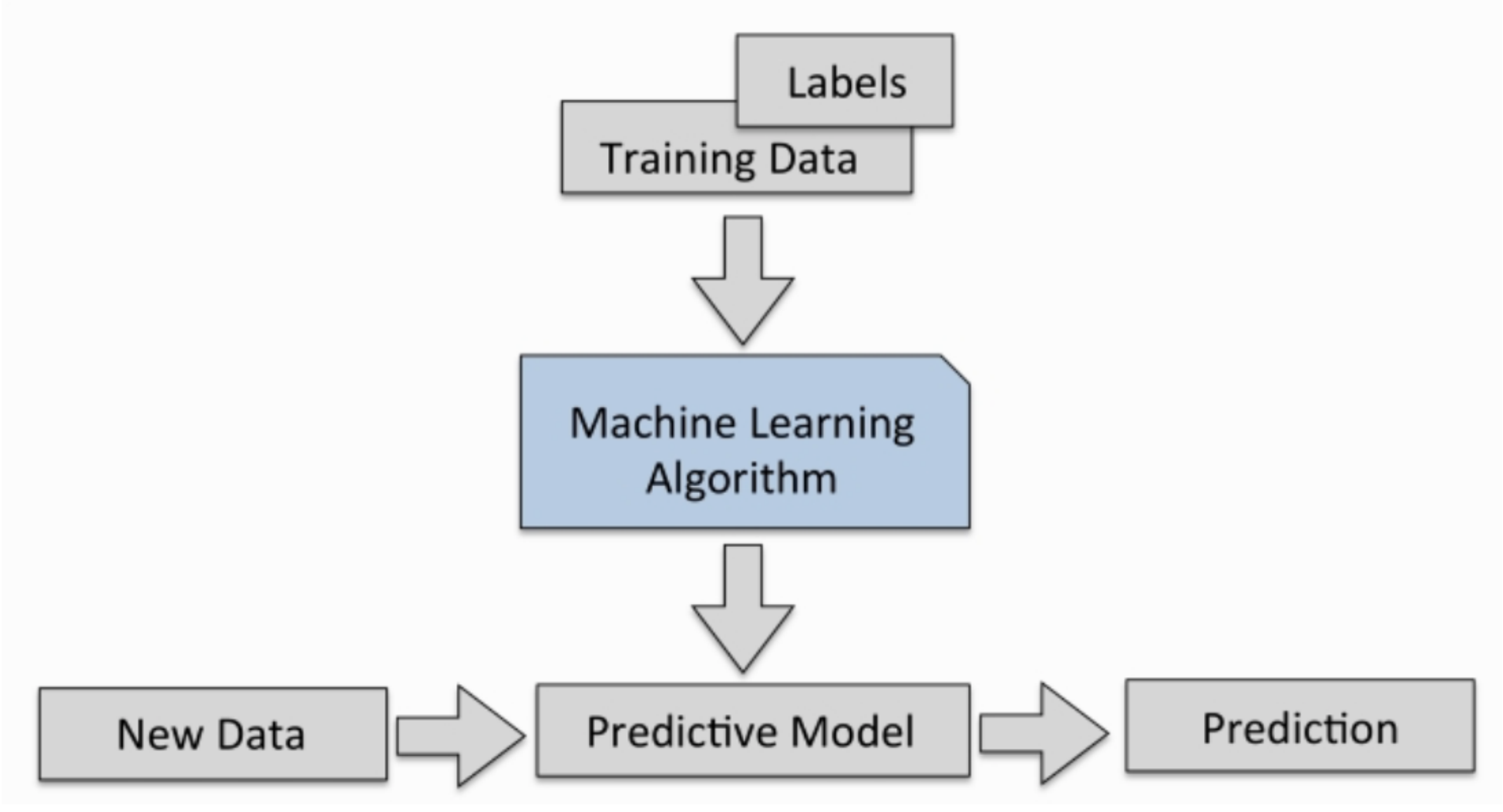


matplotlib

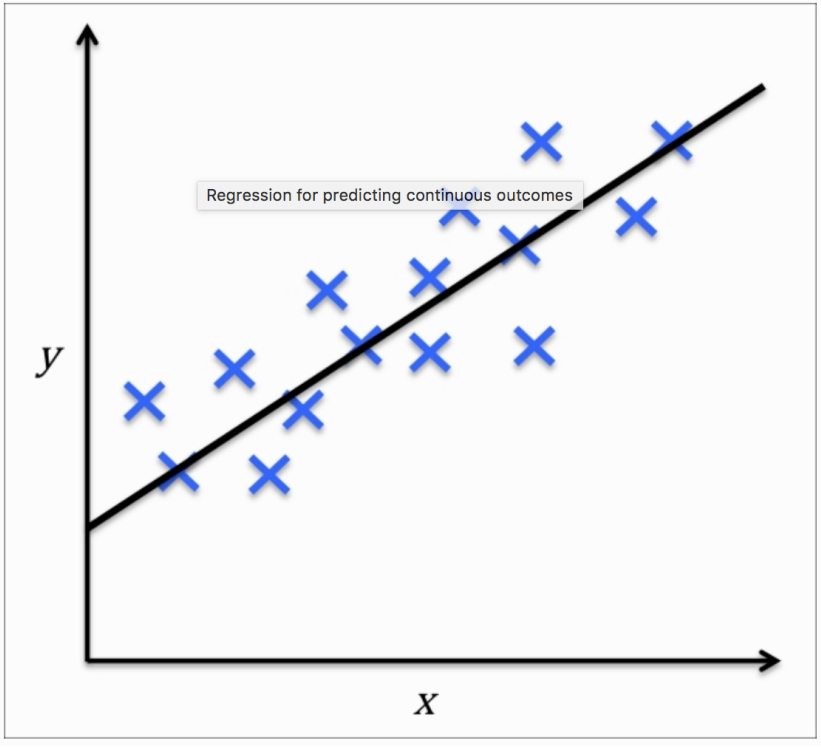
TYPES OF MACHINE LEARNING

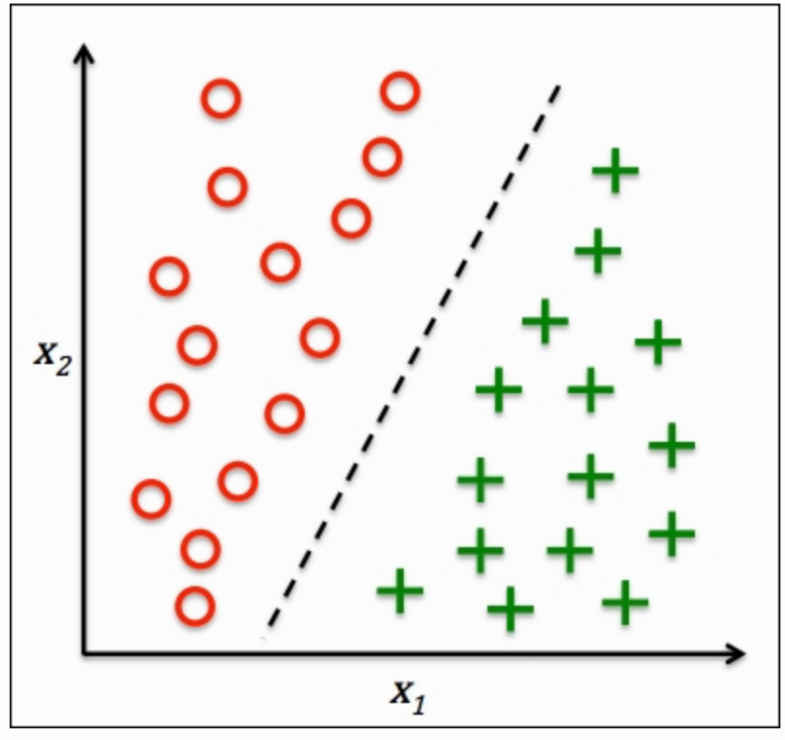


TIPICAL PIPELINE

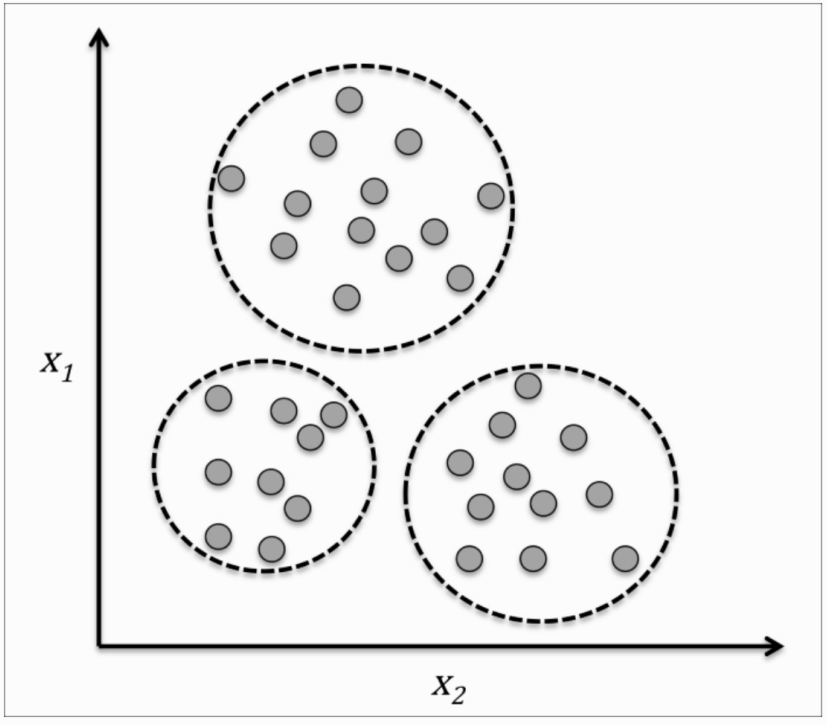


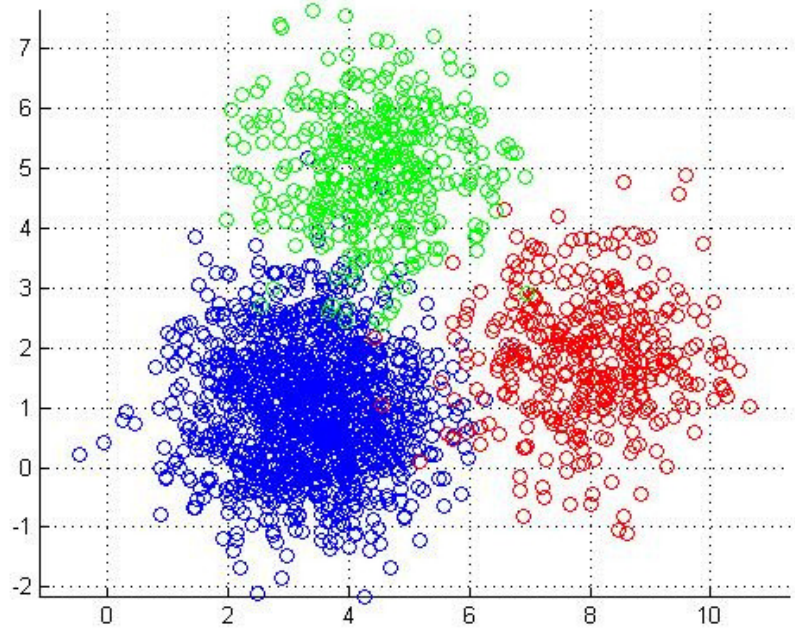
REGRESSION

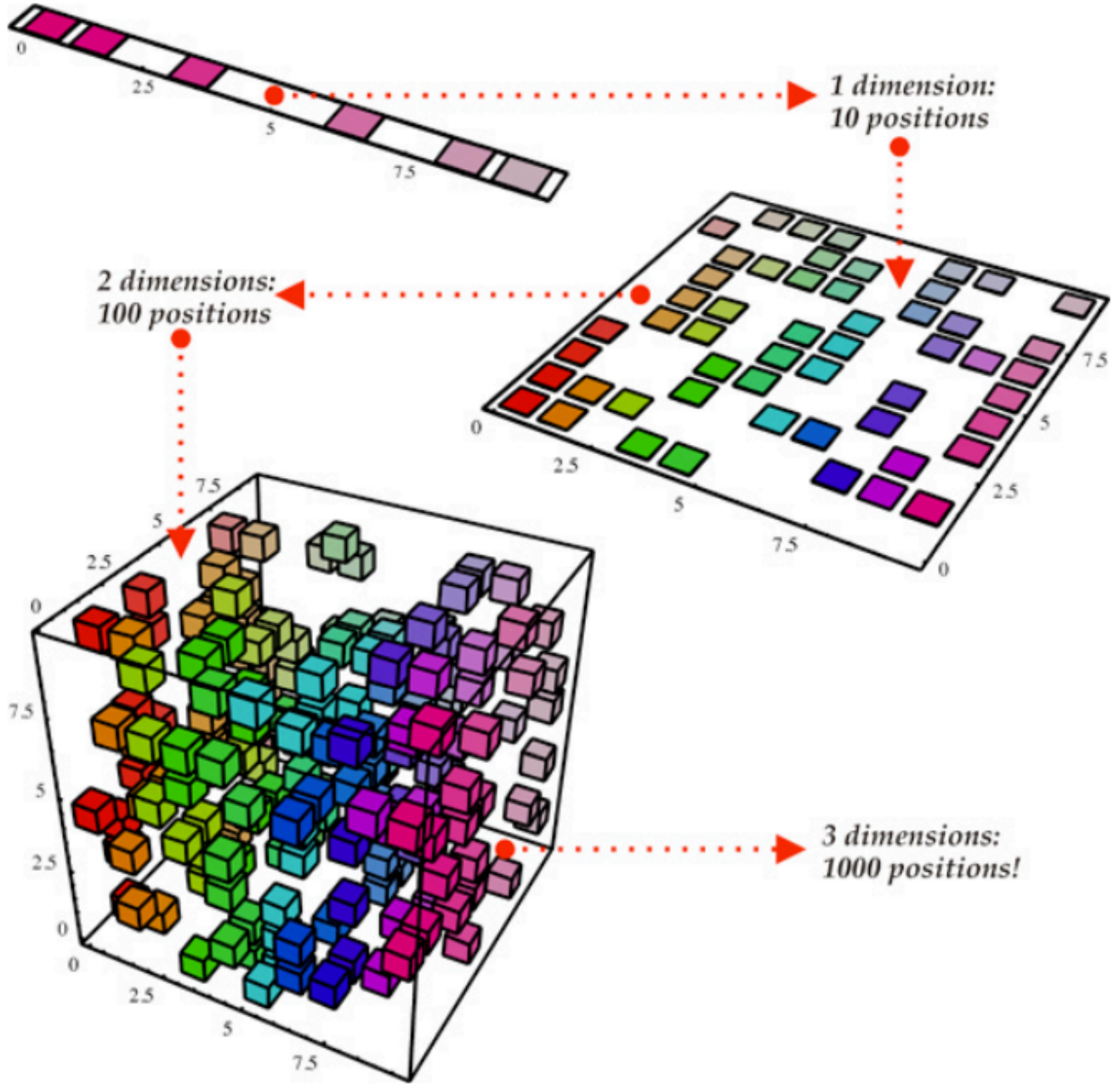




CLUSTERING






1 dimension:
10 positions
2 dimensions:
100 positions
3 dimensions:
1000 positions!

PYTHON

Stable

Easy to learn

Good performance

Vast resources

TOOLS

Numpy

Pandas

Scikit-Learn

Matplotlib

Talk is cheap. Show me the code.

— Linus Torvalds —

AZ QUOTES

RESOURCES

https://udacity.com/courses/ud120

https://udacity.com/courses/ud262

https://udacity.com/courses/ud359

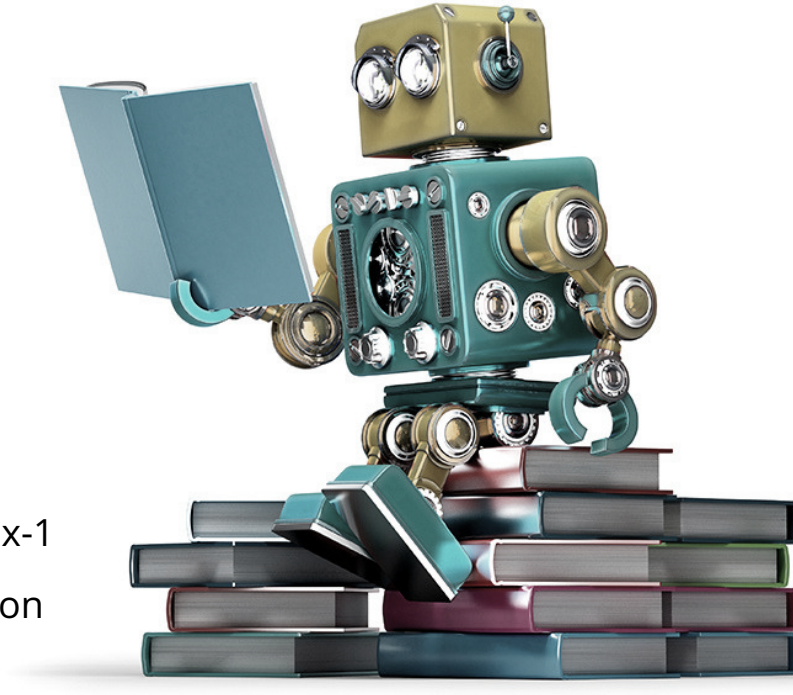
https://www.edx.org/course/machine-learning-columbiax-csmm-102x-1

https://www.udemy.com/machine-learning-e-data-science-com-python

https://github.com/petronetto/Dev-ES-Conf-2017

https://archive.ics.uci.edu/ml/index.php

https://www.kaggle.com/



Thank You