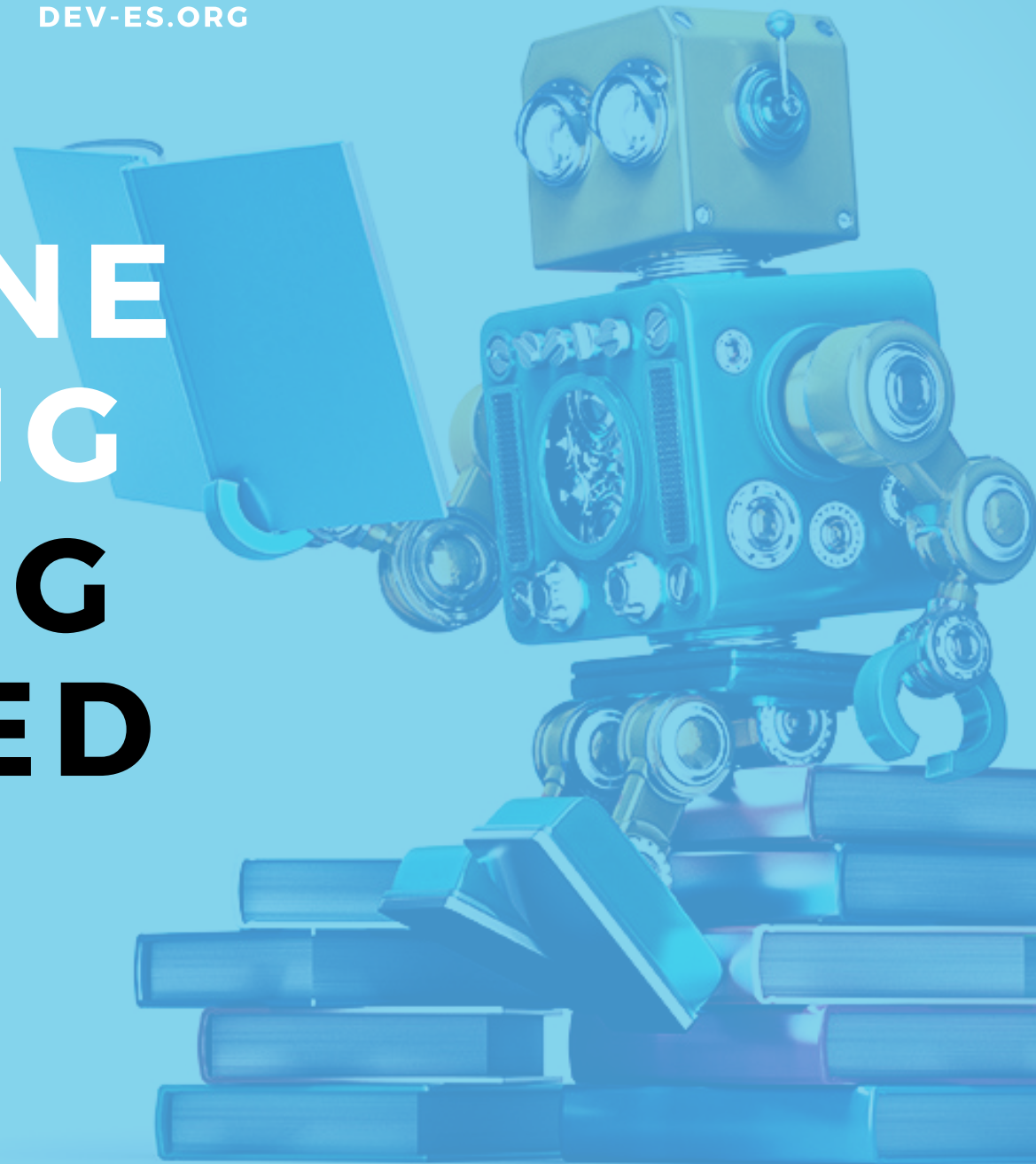


DEV-ES.ORG

# MACHINE LEARNING GETTING STARTED

Juliano Petronetto



02



# ABOUT ME

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JULIANO PETRONETTO  
SOFTWARE DEVELOPER

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[juliano@petronetto.com.br](mailto:juliano@petronetto.com.br)

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# WHY MACHINE LEARNING?

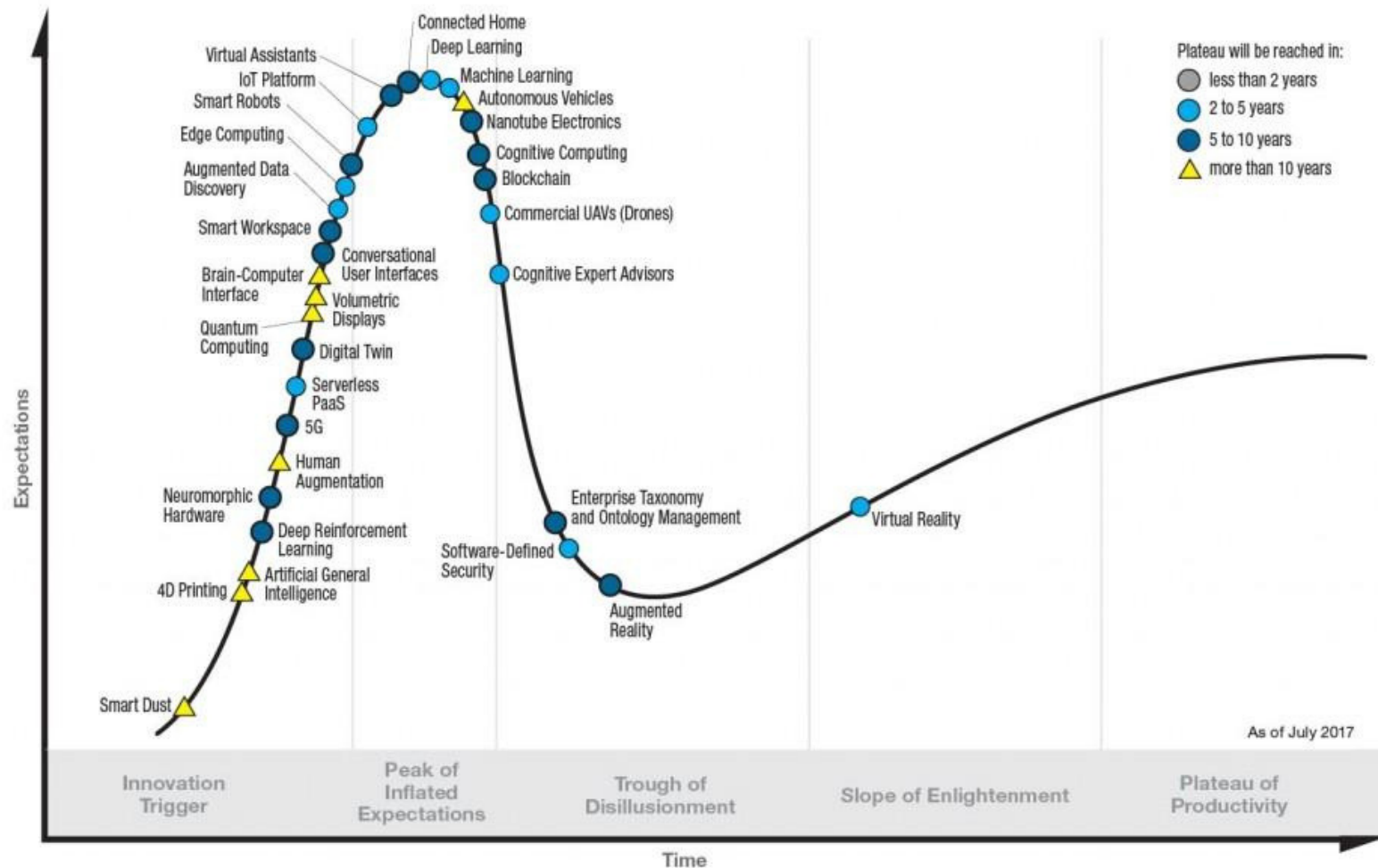
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Artificial Intelligence is the New Electricity

- Andrew Ng



# Gartner **Hype Cycle** for Emerging Technologies, 2017



[gartner.com/SmarterWithGartner](https://gartner.com/SmarterWithGartner)

Source: Gartner (July 2017)  
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**Gartner**

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

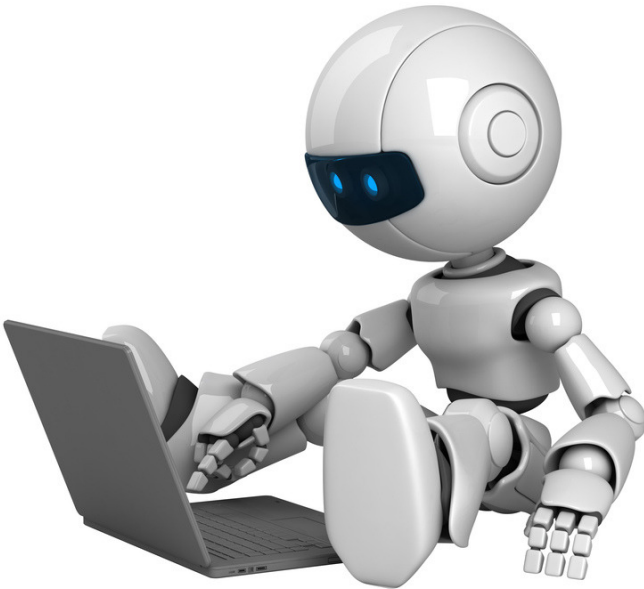
The investment in machine learning is a natural evolution in technology. The features being demanded in today's software are not CRUD operations and simple visualizations. They are features that resemble 'reasoning' and automated decision making such that end users are free to do what humans are naturally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

Sean McClure



# REQUIRED SKILLS

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**01** Basic math

**02** Programming  
Fundamentals

**03** Good english  
reading



IT'S NOT  
ROCKET SCIENCE



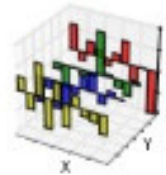
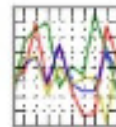
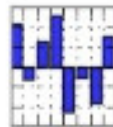
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# OPEN SOURCE TOOLS

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





# PYTHON

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Stable

Easy to learn

Good performance

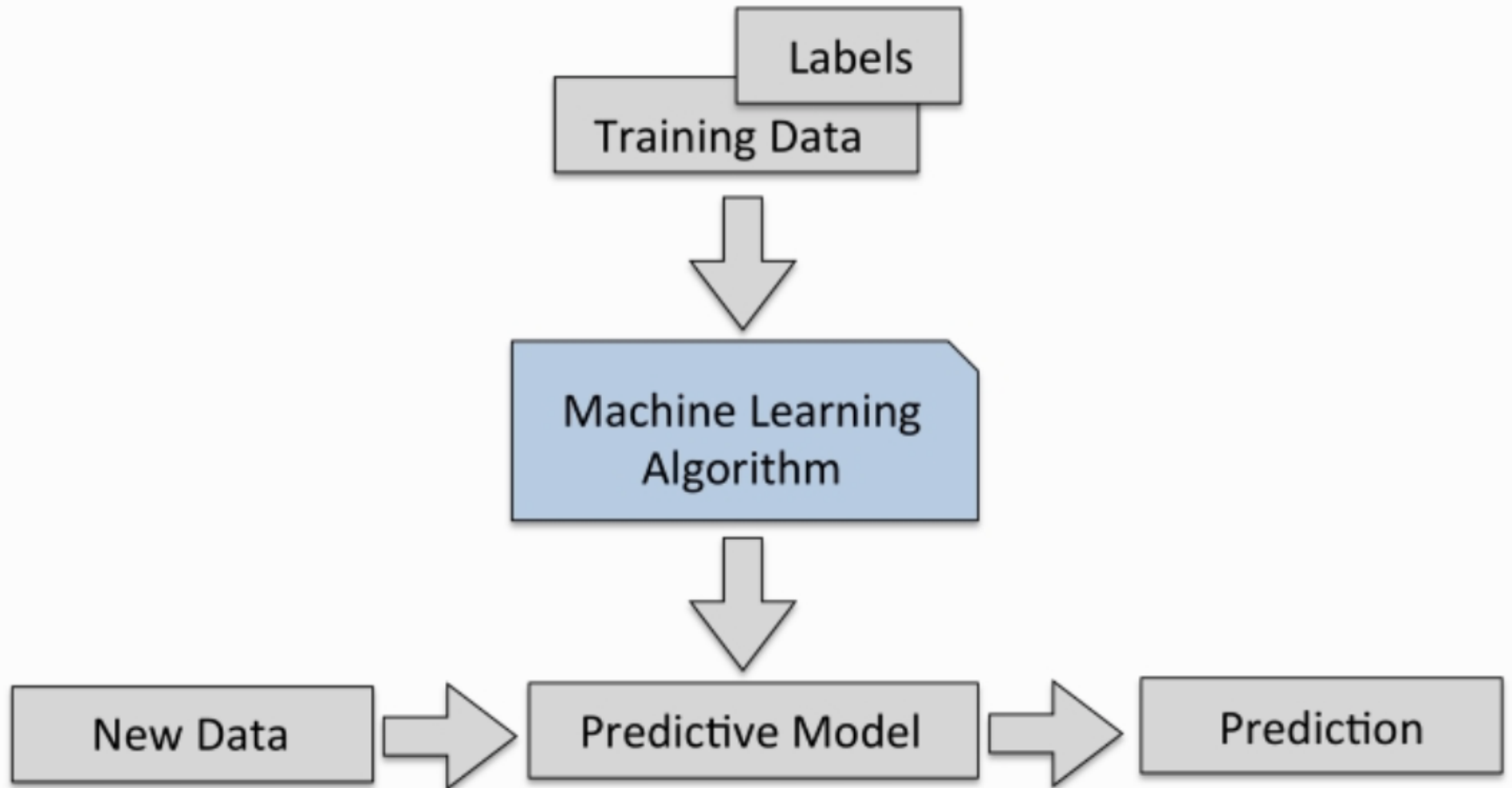
Vast resources

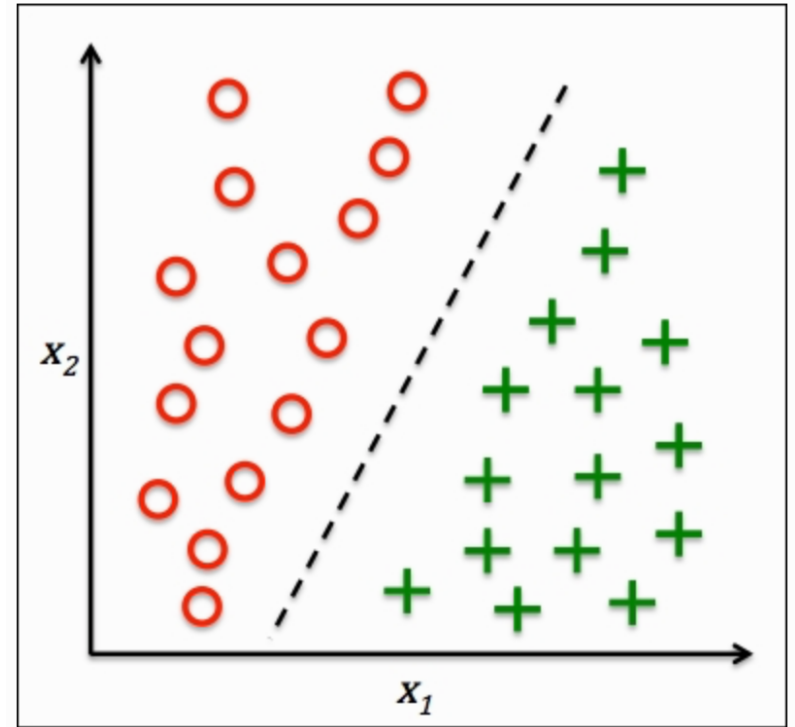
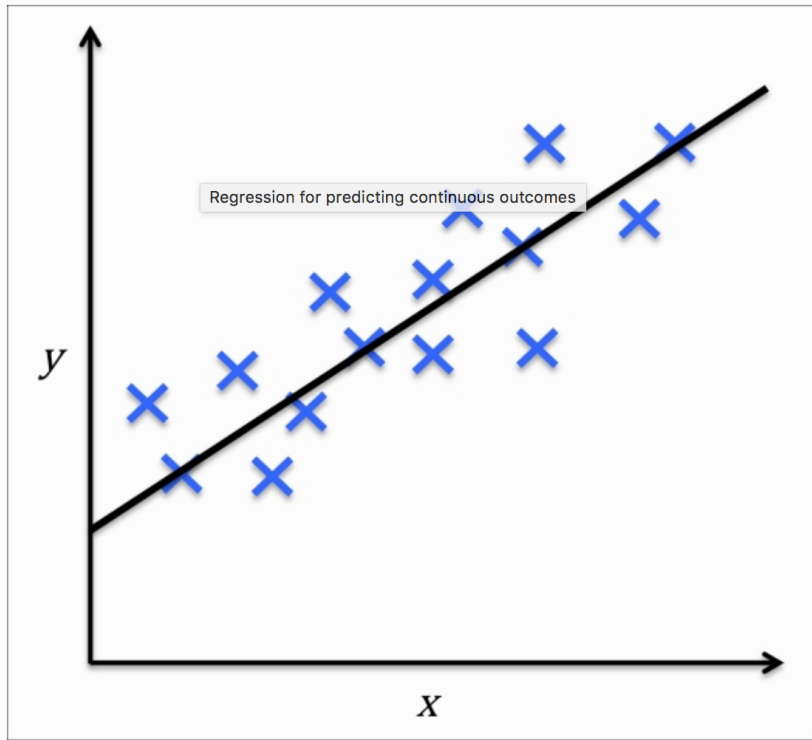
# TYPES OF MACHINE LEARNING

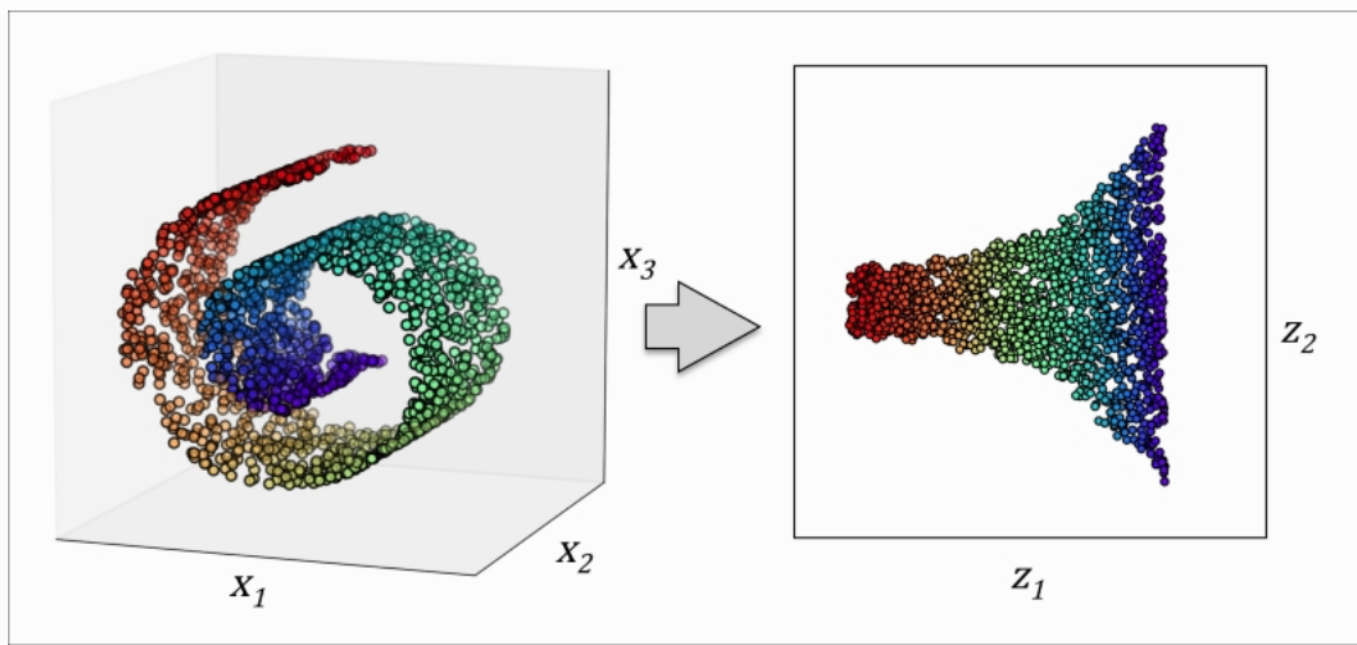
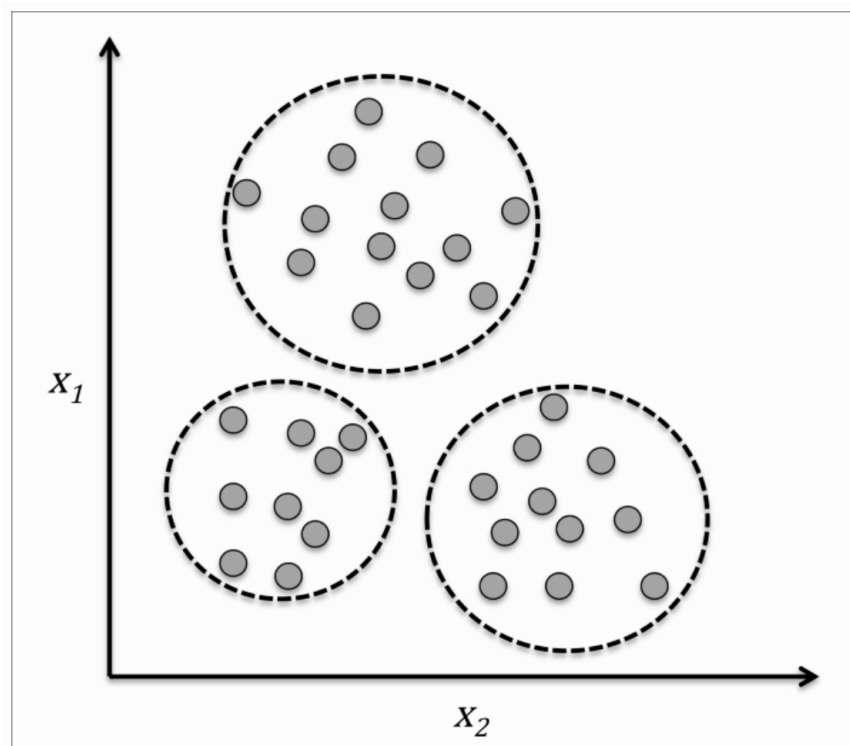
Unsupervised  
Learning

Supervised  
Learning

Reinforcement  
Learning









Talk is cheap. Show me the code.

— *Linus Torvalds* —

AZ QUOTES



# RESOURCES

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[HTTPS://UDACITY.COM/COURSES/UD120](https://udacity.com/courses/ud120)

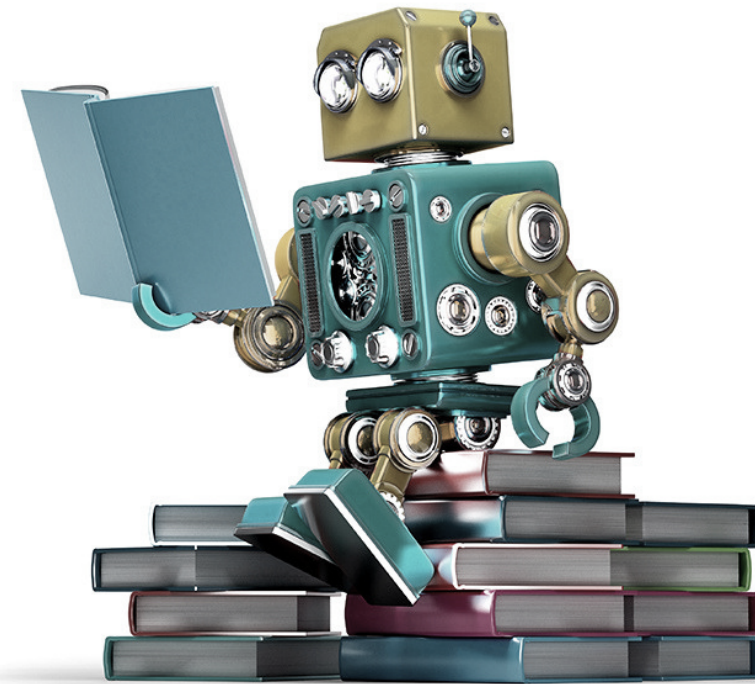
[HTTPS://UDACITY.COM/COURSES/UD262](https://udacity.com/courses/ud262)

[HTTPS://UDACITY.COM/COURSES/UD359](https://udacity.com/courses/ud359)

[HTTPS://WWW.EDX.ORG/COURSE/MACHINE-LEARNING-COLUMBIA-CS112-1](https://www.edx.org/course/machine-learning-columbia-cs112-1)

[HTTPS://WWW.UDEMY.COM/MACHINE-LEARNING-E-DATA-SCIENCE-COM-PYTHON](https://www.udemy.com/machine-learning-e-data-science-com-python)

[HTTPS://GITHUB.COM/PETRONETTO/DEV-ES-CONF-2017](https://github.com/petronetto/dev-es-conf-2017)





Thank You