Machine
Learning
Common
algorithms
models
publications
game
Science
conference
inductive
polynomial
time
recognition
include
date
Theory
NIPS
Systems
certain
Neural
math
Human
classes
outputs
pattern
logic
research
div
performance
learns
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types
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statistics
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framework
search
computer
algorithm
statistical
Supervised
instead
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processing
Artificial
based
List
programming
results
training
Weka
attempt
Transduction
examples
environment
desired
Applications
intelligence
maps
important
ICML
one
computational
classification
intuition
speech
Show
analysis
inputs
software
theoretical
robot
diagnosis
function
data
bounds

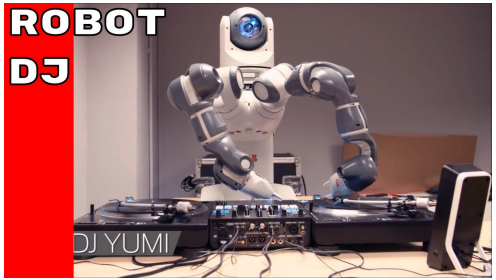
Summary of Day

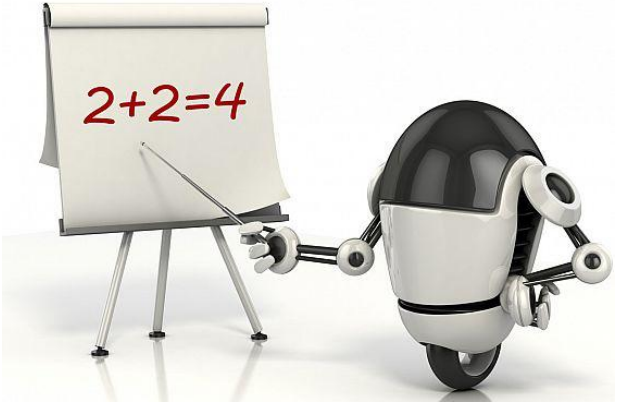
- Introduction to AI
- Types of Learning
- Optimization in ML
- Gradient Descent Algo.
- Regressors
- Python, Sklearn
- Implement Regressors
- Supervised/Unsupervised algo. With Sklearn

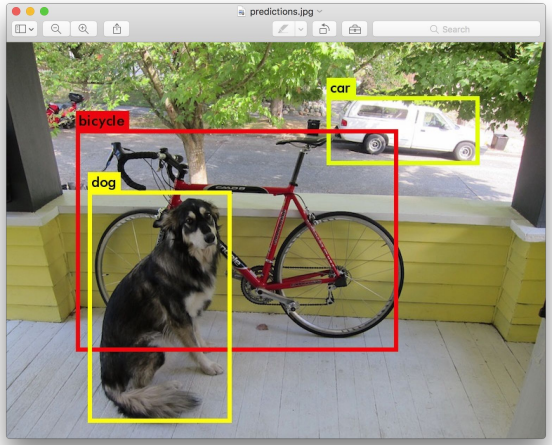
Algorithmic Programming

?

What if?







Input text

The next planet was inhabited by a tippler. This was a very short visit but it plunged the little prince into deep dejection.

Synthesized result

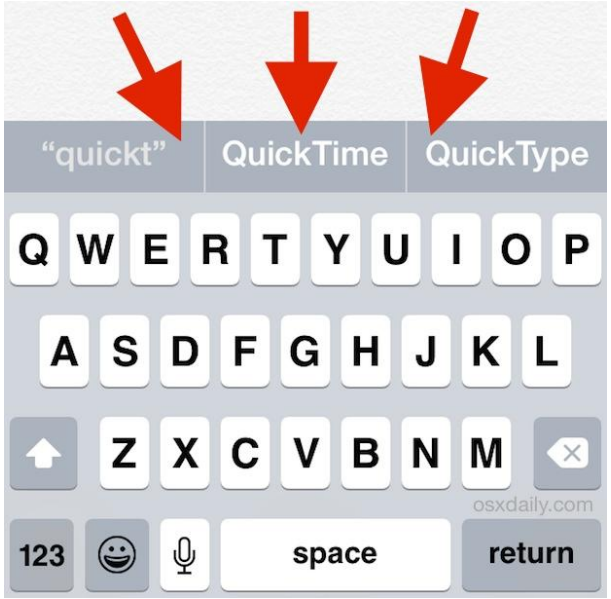
The next planet was inhabited by a tippler. This was a very short visit, but it plunged the little prince into deep dejection.

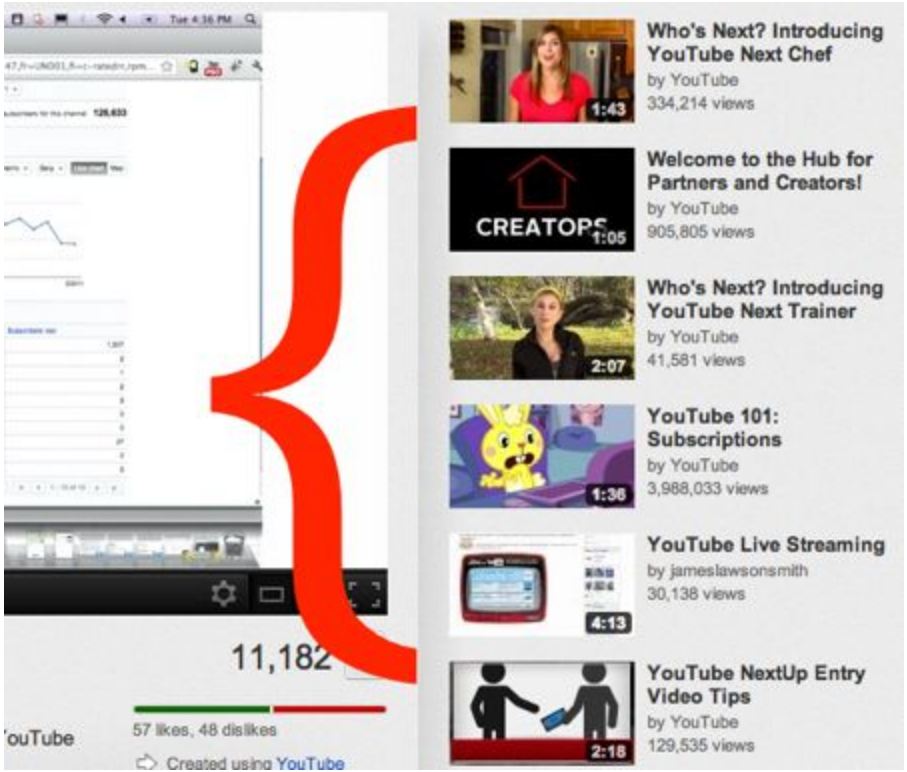
What if?

- Data Security
- Financial Trading
- Healthcare
- Fraud Detection
- Recommendations
- Online Search

What if?

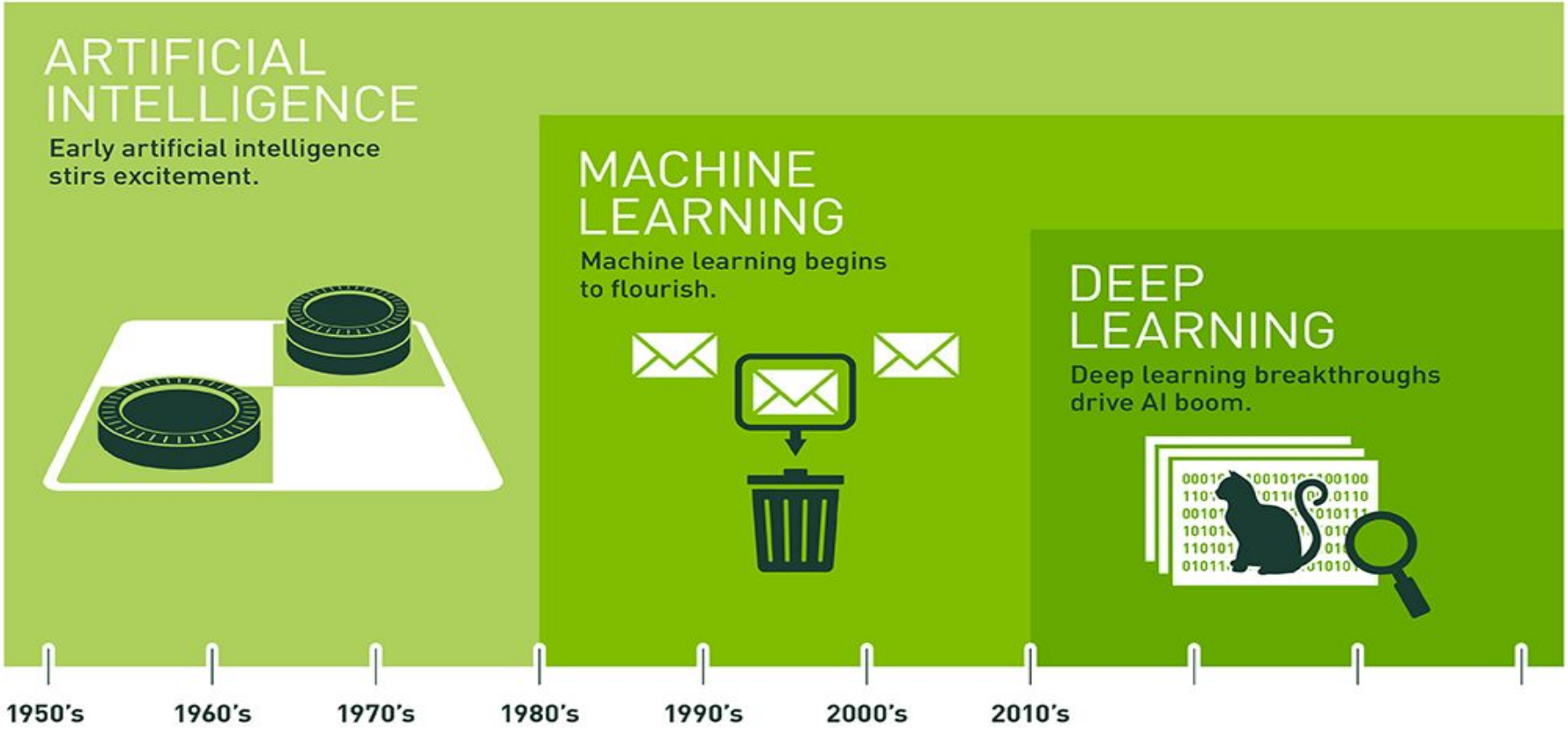
- Keyboard Suggestion
- YouTube recommendation





AI

Artificial Intelligence



Since an early flush of optimism in the 1950s, smaller subsets of artificial intelligence – first machine learning, then deep learning, a subset of machine learning – have created ever larger disruptions.

Areas of AI

- Machine Learning
- Deep learning
- Computer Vision
- Natural Language Processing (NLP)
- Medical Imaging
- Games
- Security, ...

Installation, Prerequisites materials, & Clone Repository.

Machine Learning

- **Machine learning** is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed.
- **Machine learning** focuses on the development of computer programs that can access data and use it learn for themselves.

Types of ML algorithm

- Supervised learning
- Unsupervised Learning
- Semi-supervised Learning
- Reinforcement Learning
- Transfer Learning

Supervised algorithms

- Nearest Neighbor, Naive Bayes, Decision Trees, Linear Regression, Support Vector Machines (SVM), **Neural Networks**,...

Unsupervised algorithms

- k-means clustering, Association Rules, Autoencoders, Adversarial Networks, few NN, ...

Optimization in ML