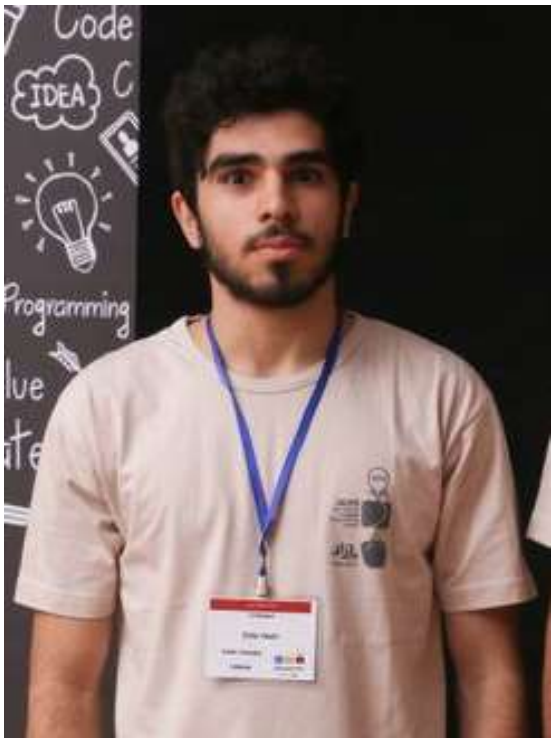
Erfan Miahi

- 2.1054 years experience in AI
- Current research area:
  - Computer Vision
  - Neural Architecture Search
  - Meta Learning



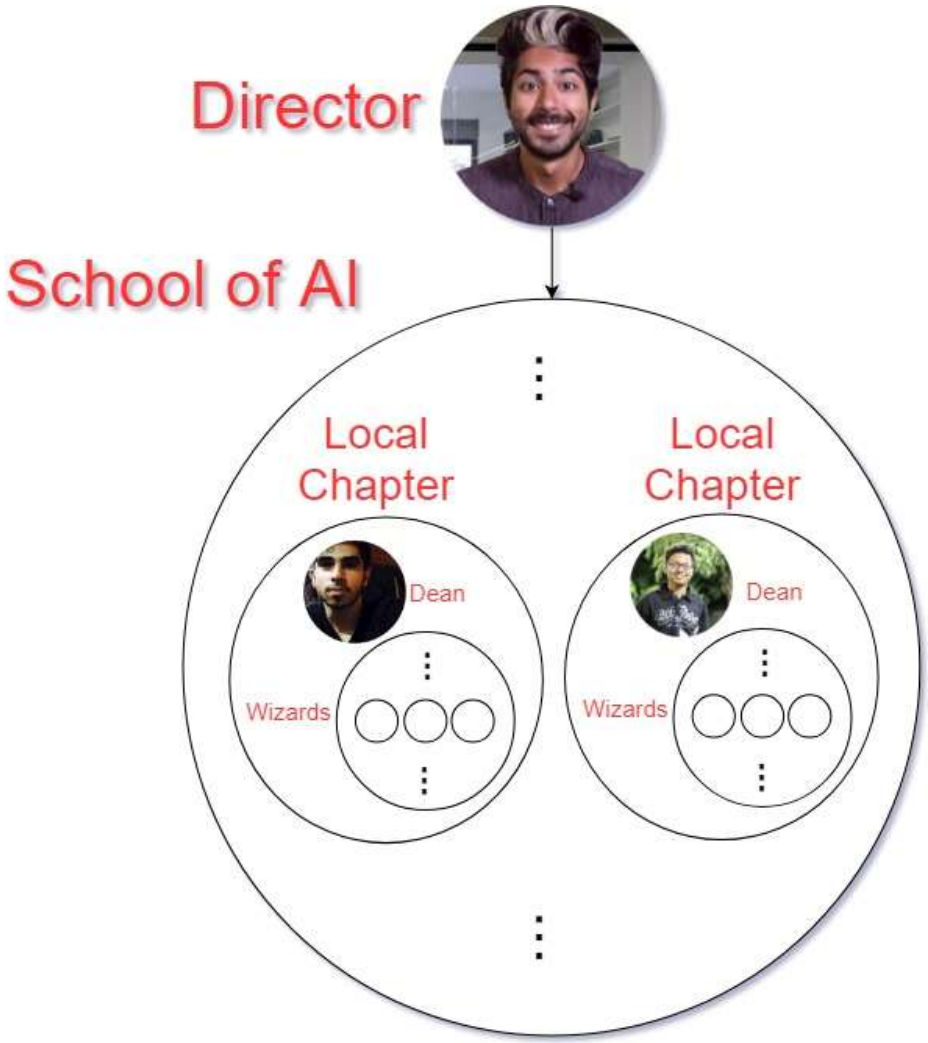
Content

- Introduction to School of AI
- A Brief History of Artificial Intelligence
- Career Opportunities
- Introduction to Artificial Intelligence
- Solving a Real World Problem
- Your Learning Path

What's School of AI?

An international school dedicated to studying, teaching, and creating Artificial Intelligence to help solve the world's most difficult problems.

School of AI Structure:



Who's the Director?

Siraj Raval

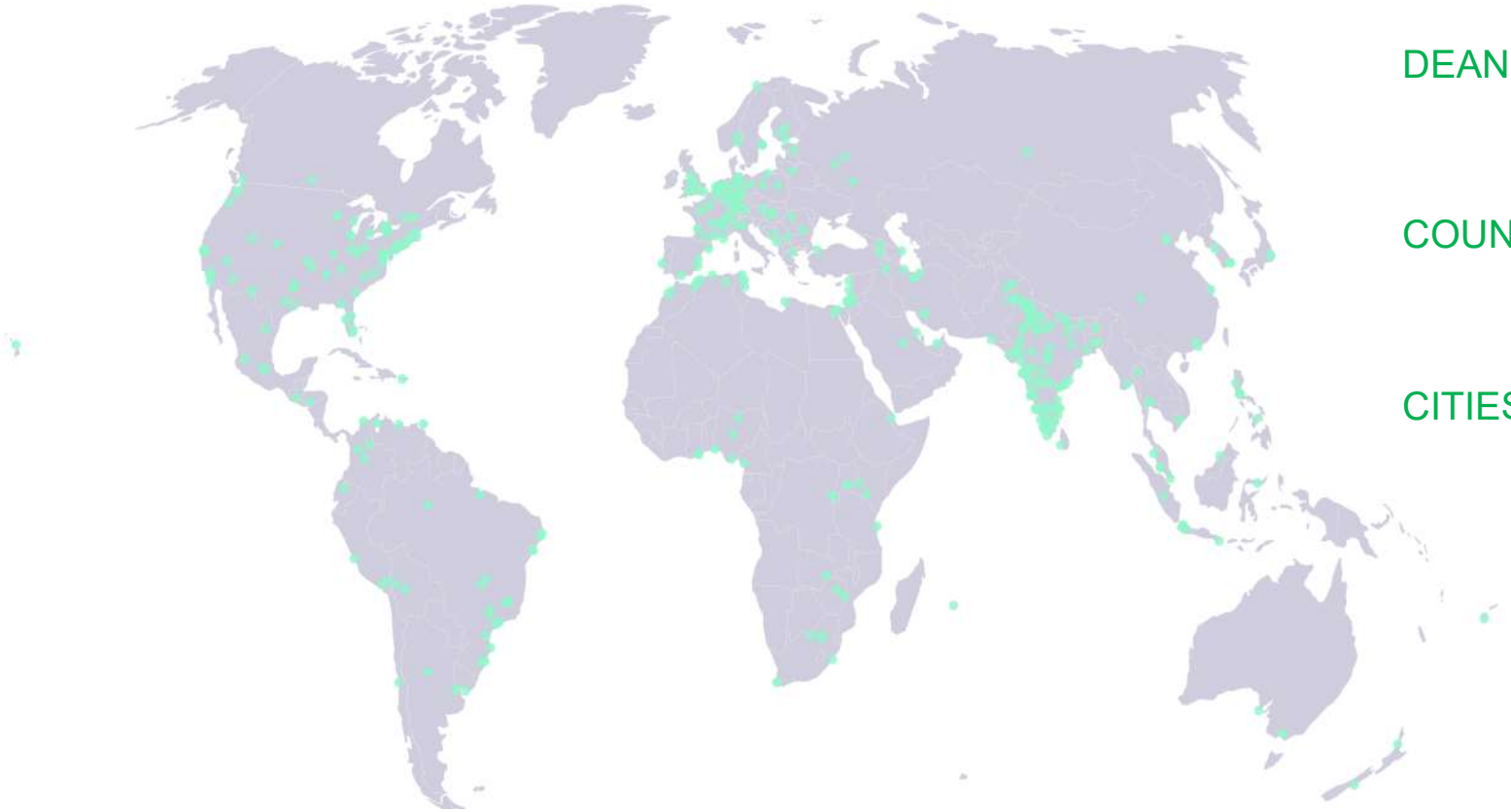
- Inspire
- Educate
- Guide
- Help us maximize our positive impact in the world using AI

Who are Deans?

We are here to offer a world-class AI education to anyone on Earth for free. Our doors are open to all those who wish to learn.

Erfan Miahi

Map of Deans



DEANS: +800

COUNTRIES: +80

CITIES: +800

Meetups in other countries

Our core values (Embrace the weird)

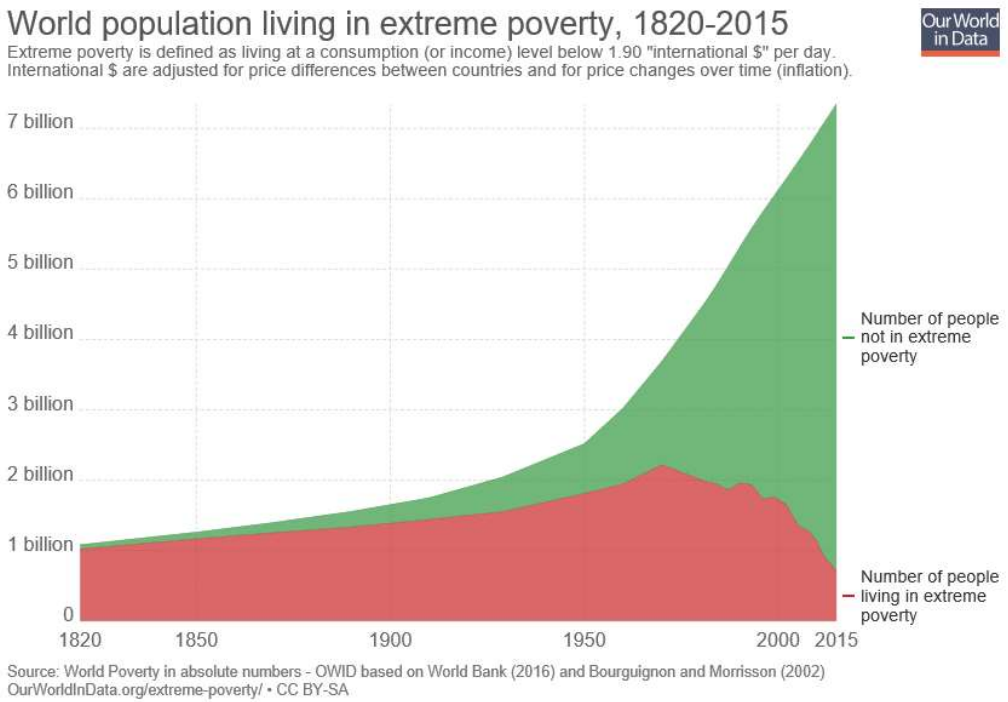
We celebrate radically new ways of thinking. The unusual excites us.

Our core values (Inspire and Educate)

When we influence others, we make sure it inspires & educates them in some way.

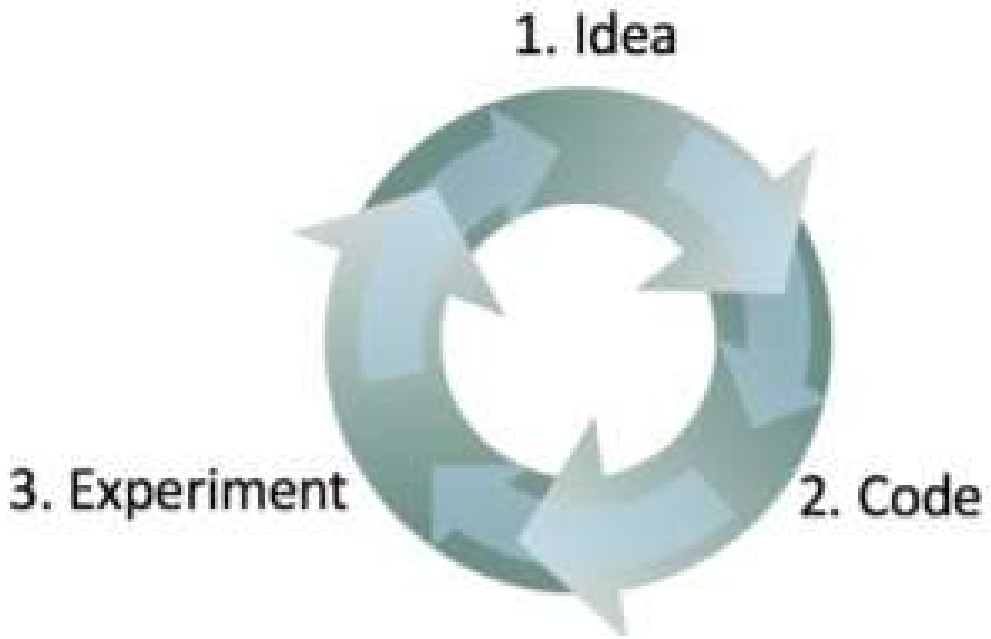
Our core values (Data Driven Optimism)

We’re optimistic people that use data to verify our beliefs.



Our core values (Rapid Experimentation)

We try to fail fast so we can improve the next iteration.

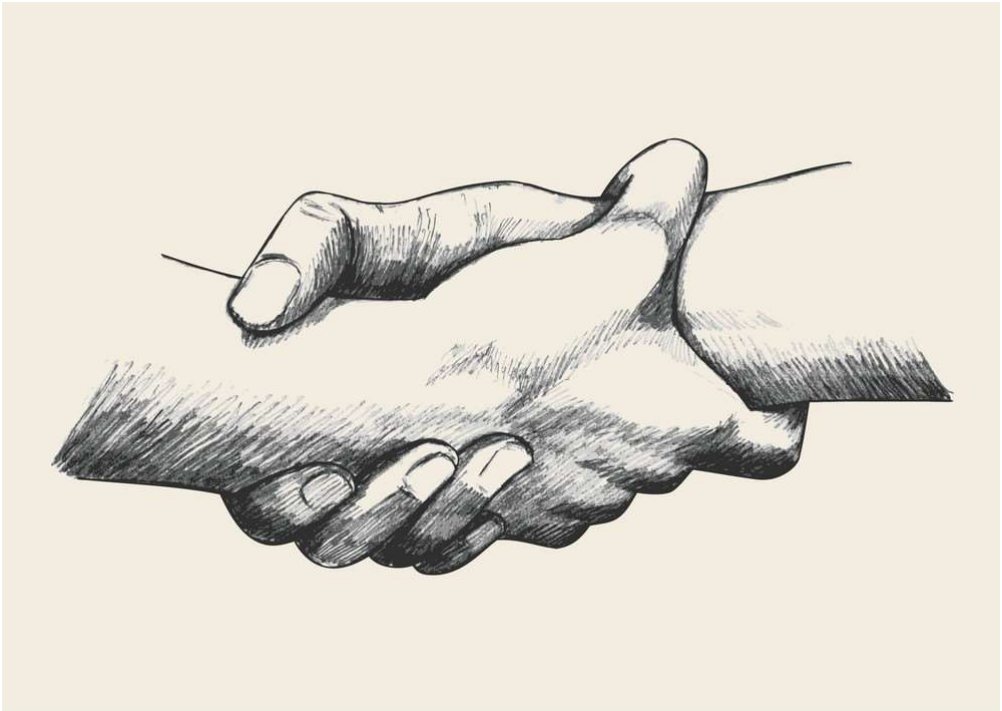


Our core values (Be Frugal)

We find clever ways to support ourselves and grow our community, grassroots style.

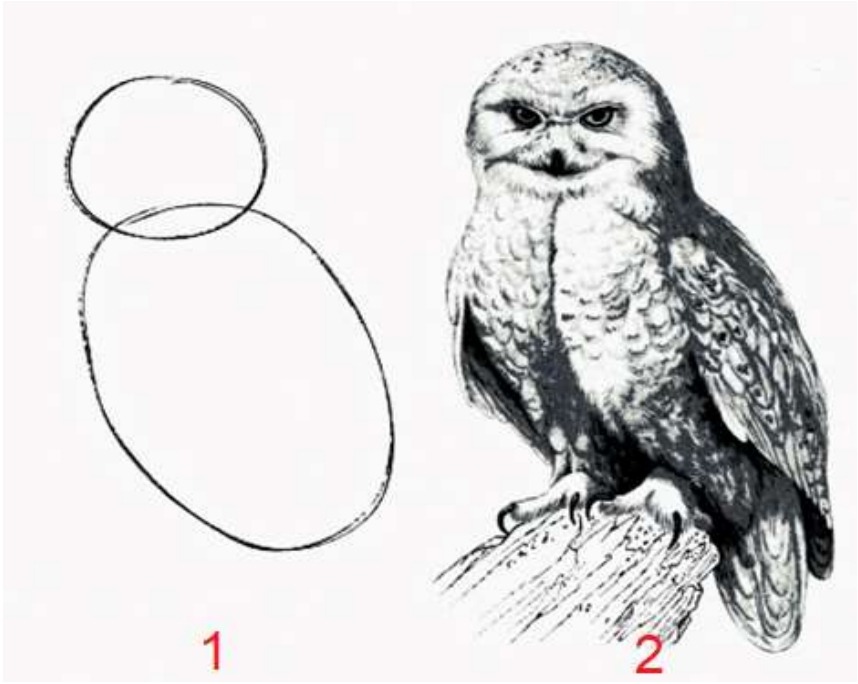
Our core values (Choose Love, not Fear)

We try our best to make all of our decisions based on love for ourselves and others.



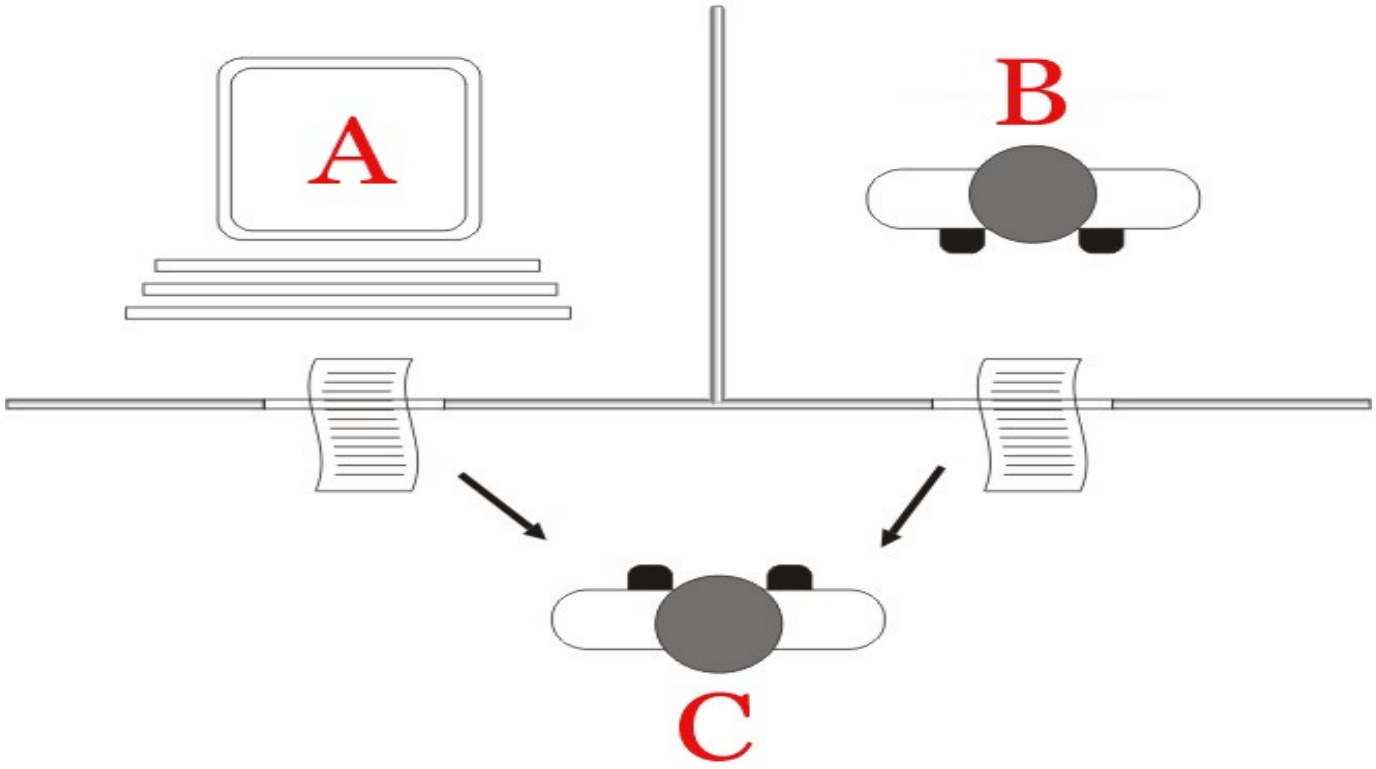
Our core values (Draw the owl)

We’re not always given instructions. So we take ownership and figure them out ourselves.

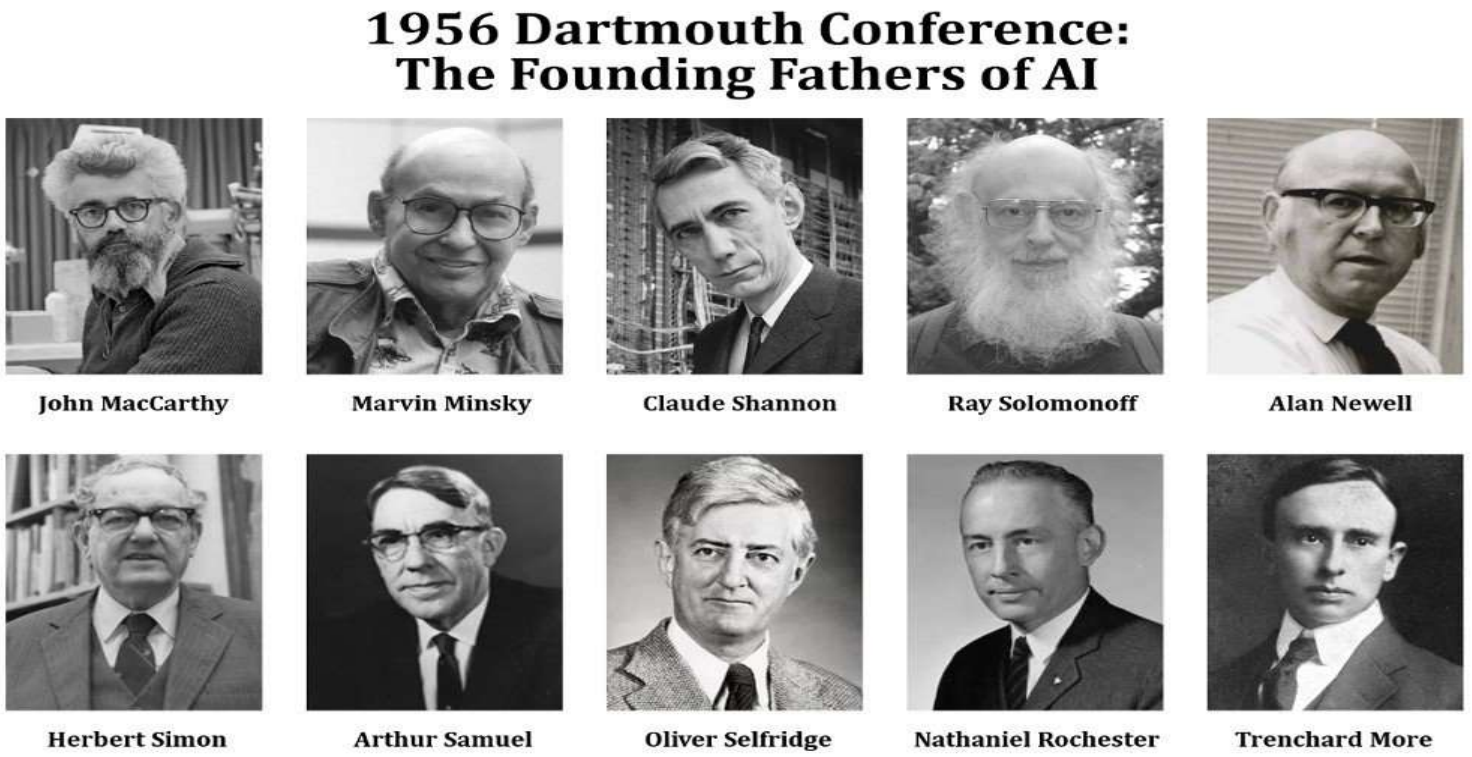


A brief history of Artificial Intelligence

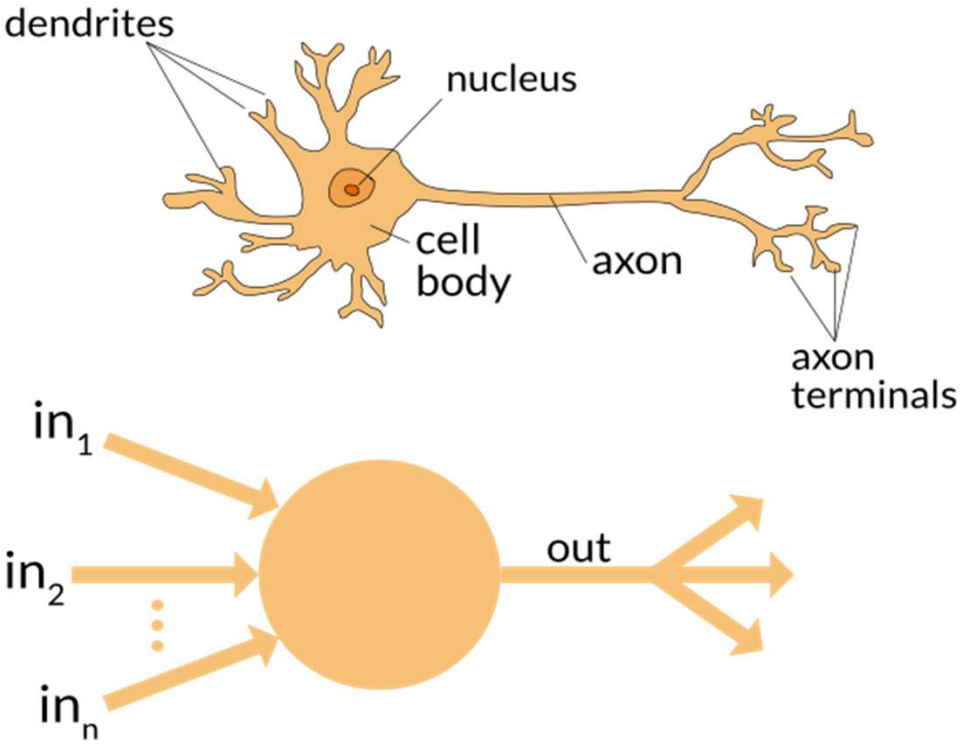
Turing's test (1950)

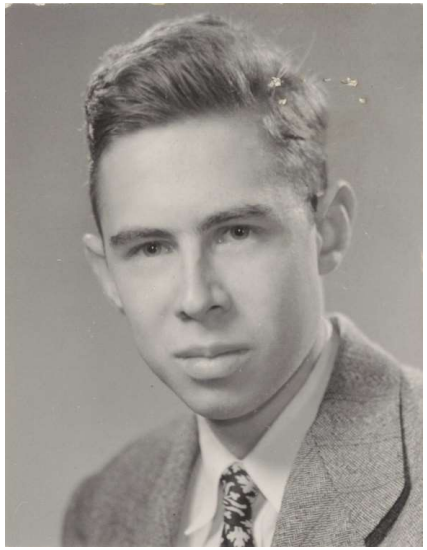


Dartmouth Conference: the birth of AI (1956)



Perceptron (1957)





Frank Rosenblatt

First Chat-bot Eliza (1965)

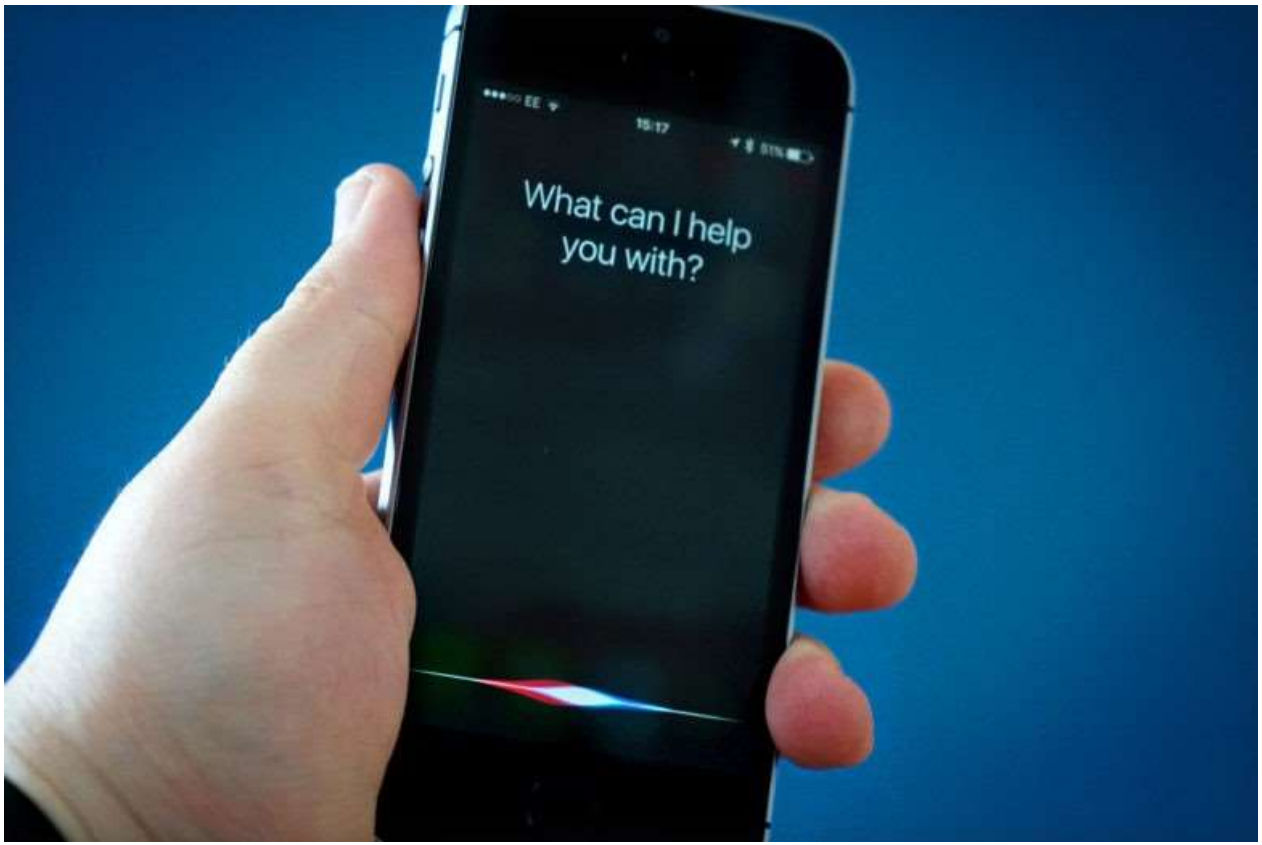
```
  Welcome to
                EEEEEE  LL      IIII  ZZZZZZZ   AAAAA
                EE      LL       II       ZZ   AA   AA
                EEEEE   LL       II     ZZZ    AAAAAAA
                EE      LL       II    ZZ      AA   AA
                EEEEEE  LLLLLL  IIII  ZZZZZZZ  AA   AA

  Eliza is a mock Rogerian psychotherapist.
  The original program was described by Joseph Weizenbaum in 1966.
  This implementation by Norbert Landsteiner 2005.


ELIZA: Is something troubling you ?
YOU:   Men are all alike.
ELIZA: What is the connection, do you suppose ?
YOU:   They're always bugging us about something or other.
ELIZA: Can you think of a specific example ?
YOU:   Well, my boyfriend made me come here.
ELIZA: Is it important to you that your boyfriend made you come here ?
YOU:   He says I'm depressed much of the time.
ELIZA: I am sorry to hear that you are depressed.
YOU:   It's true. I am unhappy.
ELIZA: Can you explain what made you unhappy ?
YOU:
```

First self driving car with neural networks (1989)

Deep Blue defeated Garry Kasparov (1997)

TV game show jeopardy defeated by AI (2011)

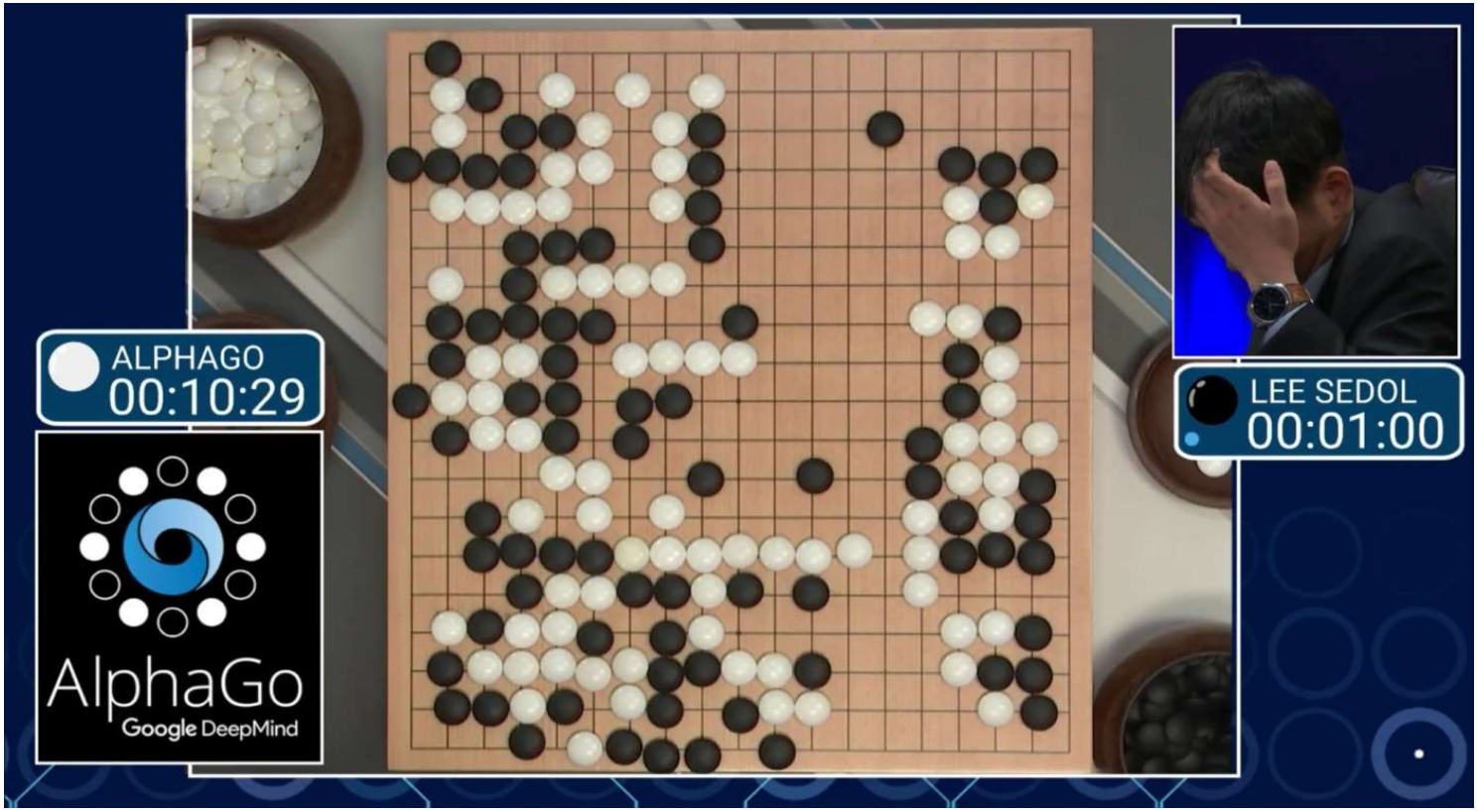
Apple’s Siri (2011)



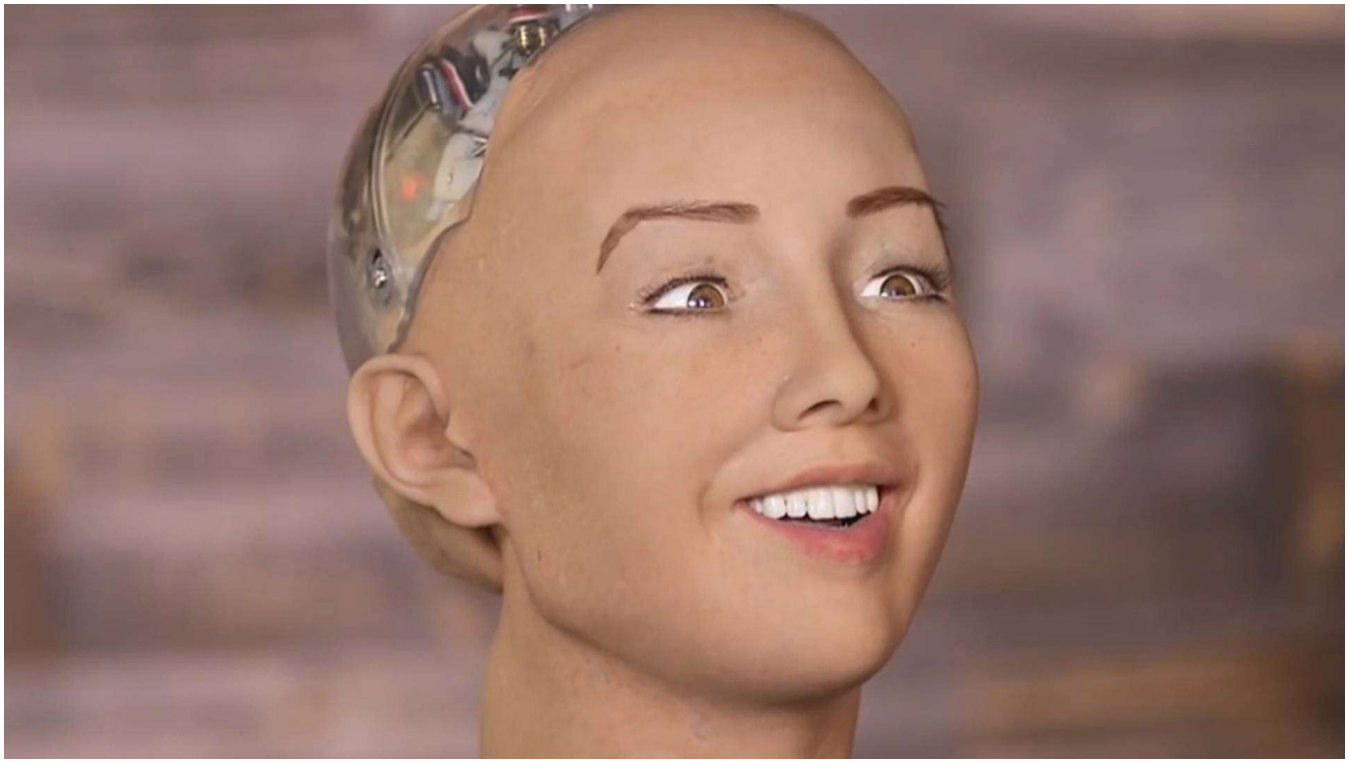
Microsoft Cortana (2014)

Face2Face (2016)

AlphaGo project (2015-2017)



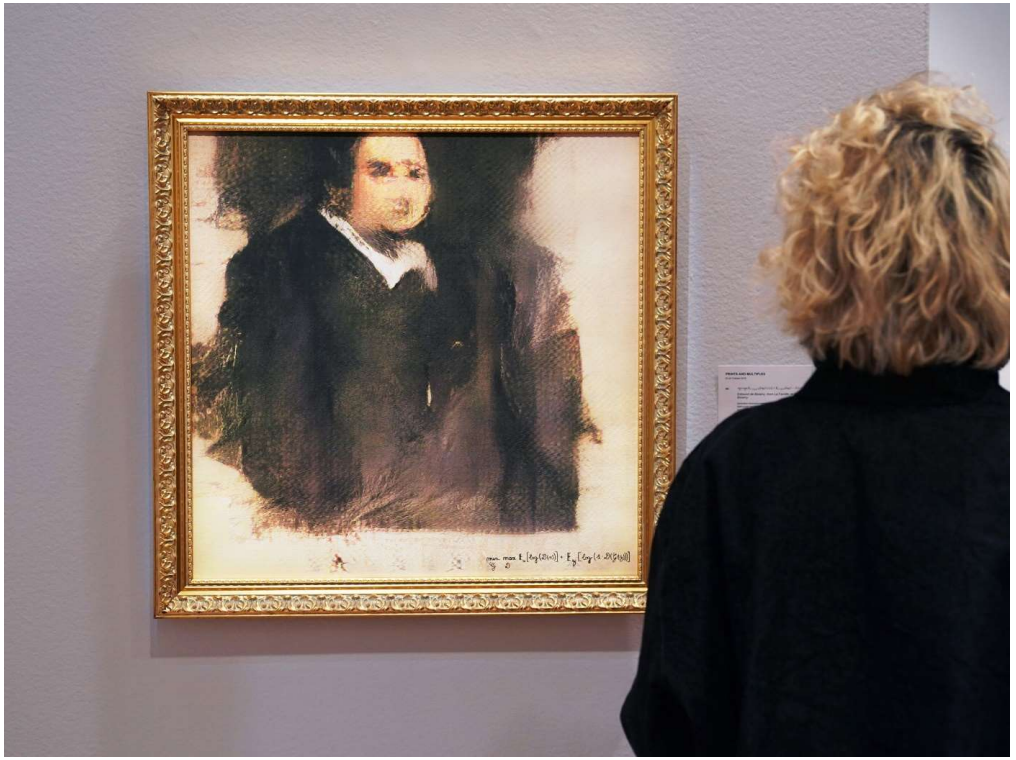
Sophia robot (2016-2018)



Dota2 Competition OpenAI (2017)

Art generation (2018)

$432,500



Today

- Self-driving Cars (Tesla)
- Music Generation
- Dota2 5v5
- Stocks Price Prediction
- Game Character Generator
- Highly Intelligent Robots
- Etc…

Founders of biggest companies in the world on AI

Politicians on AI (Vladimir Putin)

The nation that leads in AI will be the ruler of the world.

Career Opportunities

AI related jobs title

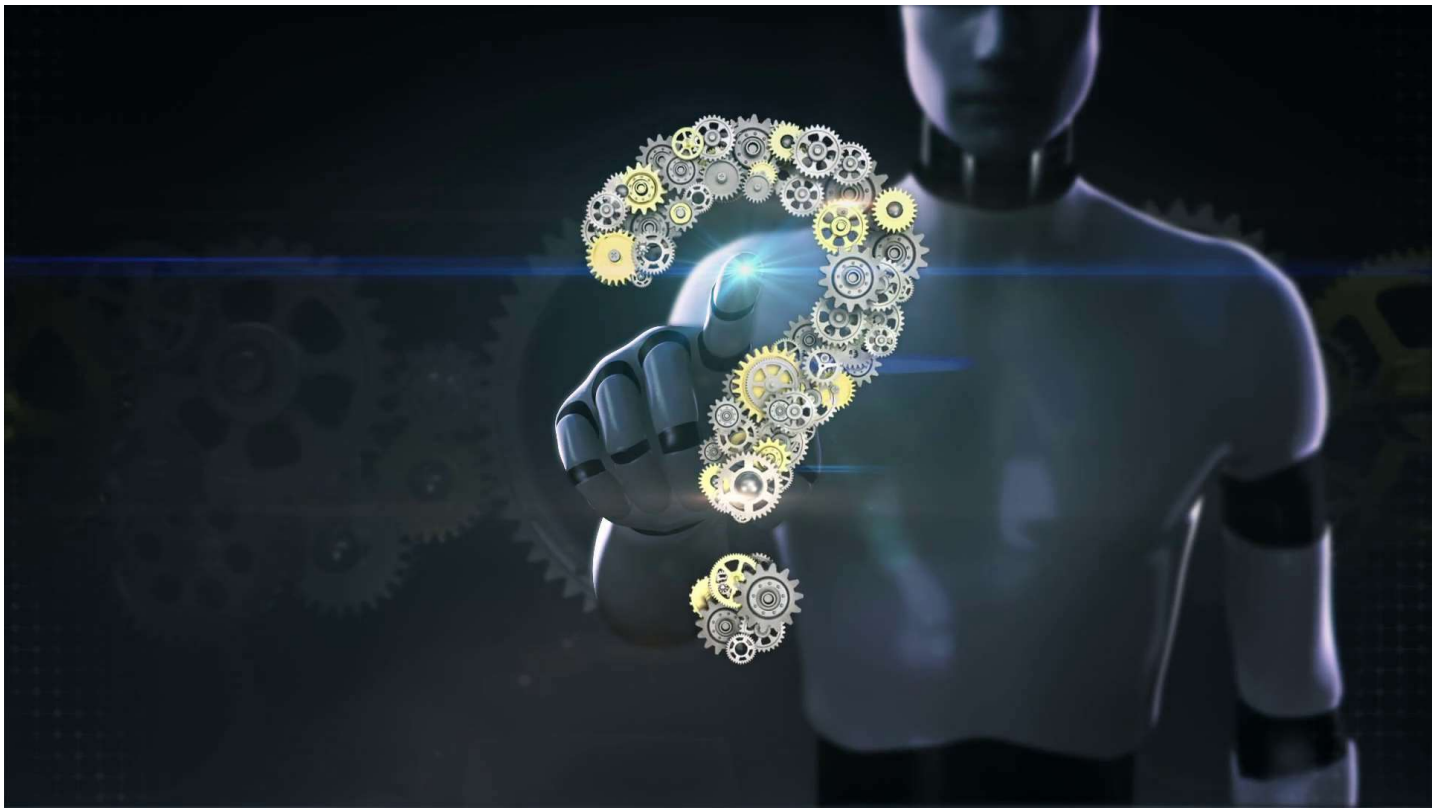
- Data Scientist
- Machine Learning Engineer
- Computer Vision Engineer
- Etc…

Iran AI related jobs

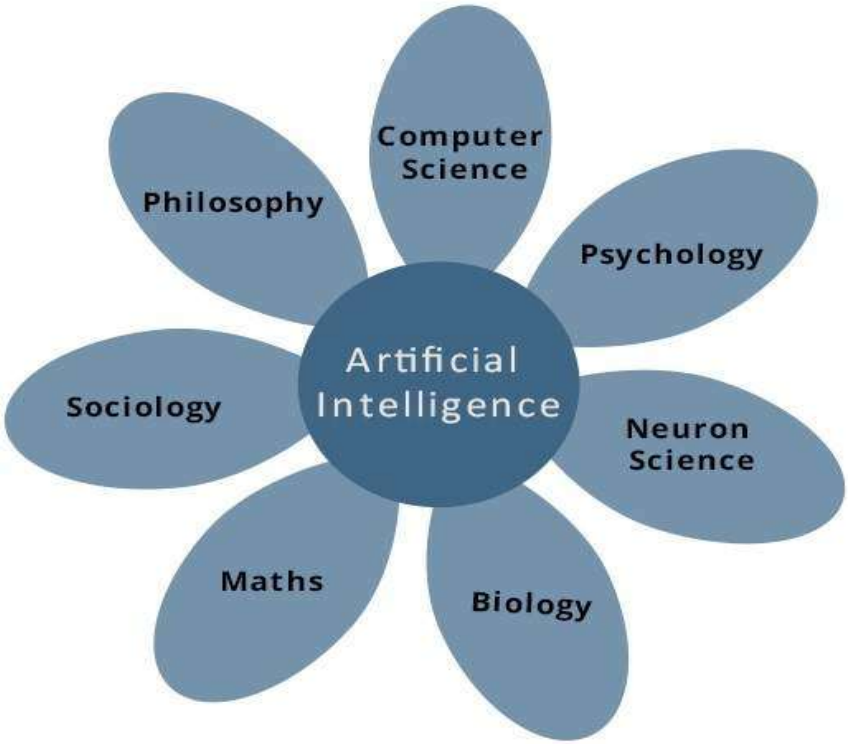
World AI related Jobs

Introduction to Artificial Intelligence

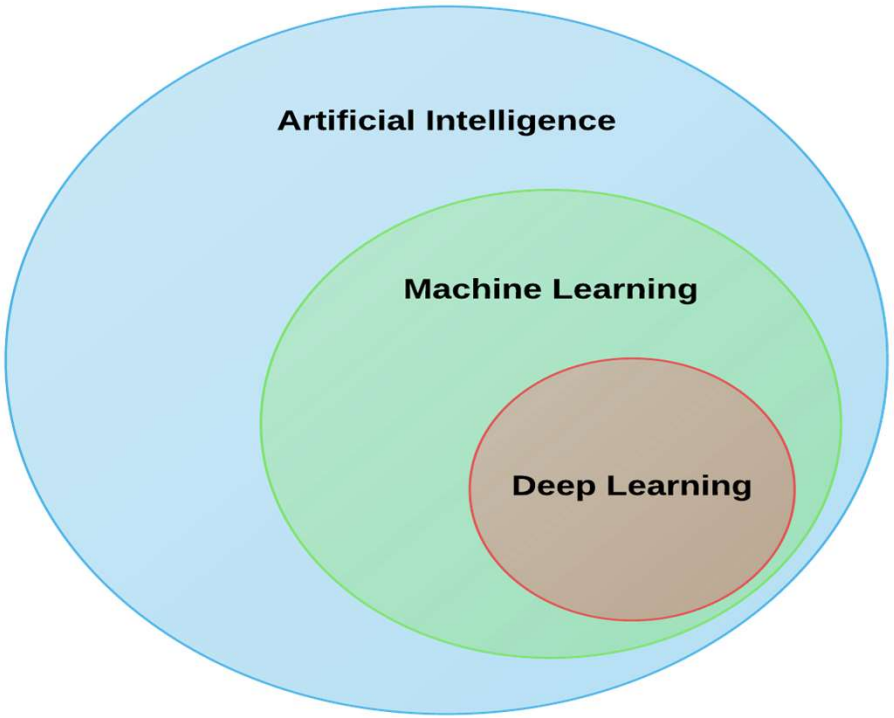
What is Artificial Intelligence?



AI related fields



AI vs ML vs DL

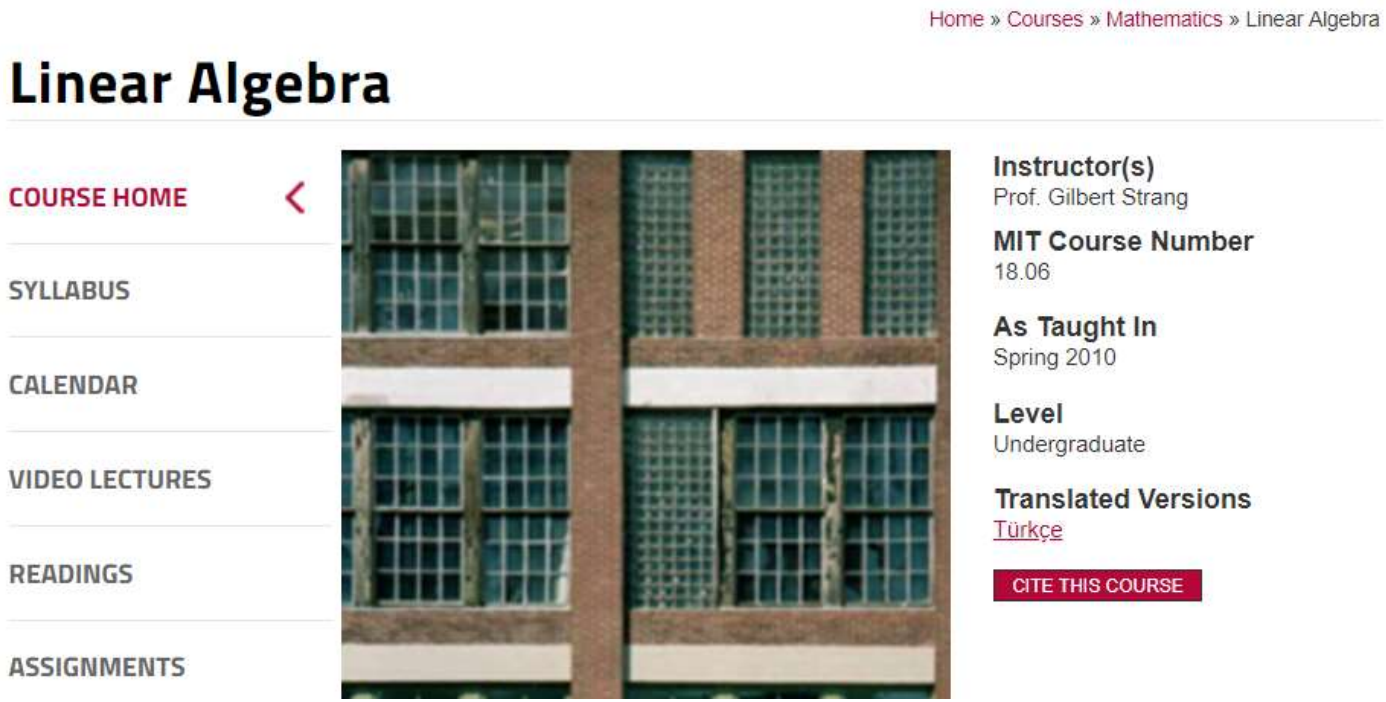


Solving a real world problem

Your learning Path

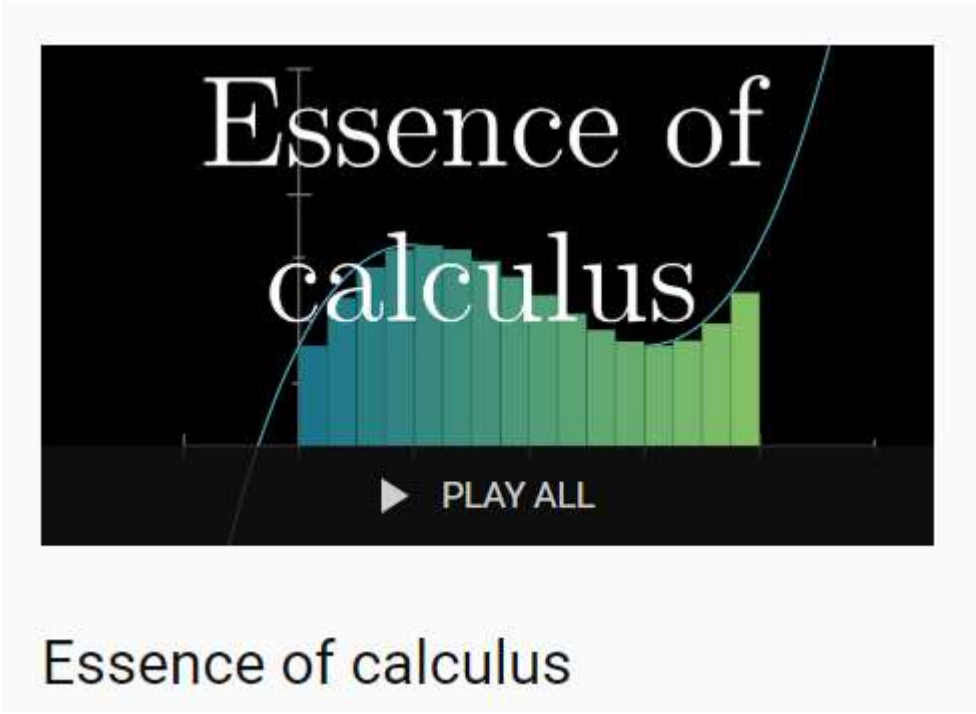
Your Future Path (1)

Linear Algebra (by MIT)



Your Future Path (2)

Calculus (by 3Blue1Brown YouTube Channel)



Your Future Path (3)

Statistics (by Edx)

Probability - The Science of Uncertainty and Data

Provided by Massachusetts Institute of Technology (MITx)

$300 USD
for a certificate
(or study for free)

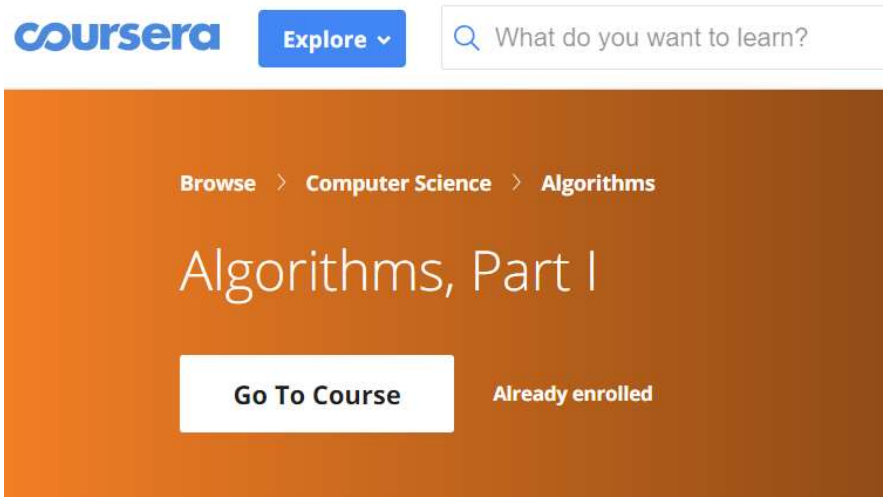
12 hours
per week, for 16 weeks

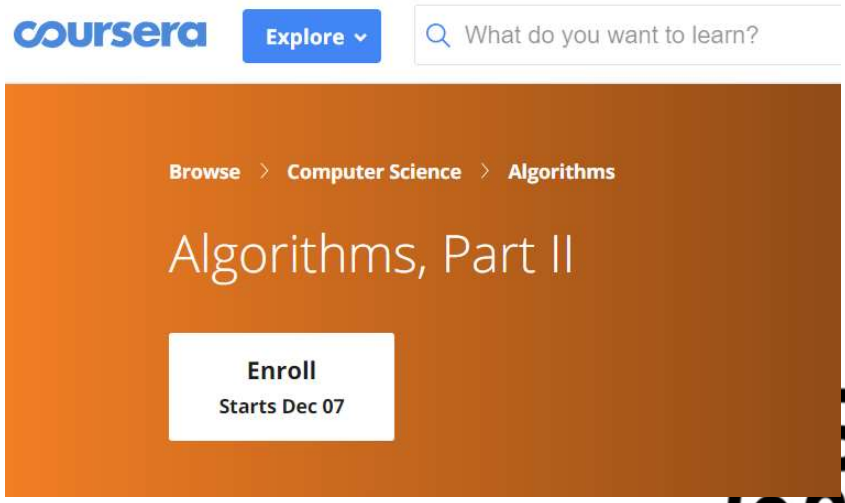
Advanced
See Prerequisites

Build foundational knowledge of data science with this introduction to probabilistic models, including random processes and the basic elements of statistical inference — *Course 1 of 4 in the MITx MicroMasters program in Statistics and Data Science.*

Your Future Path (4)

Algorithms (2 part by Coursera)





Your Future Path (5)

Learning python & Data Science together (by Coursera)

Your Future Path (6)

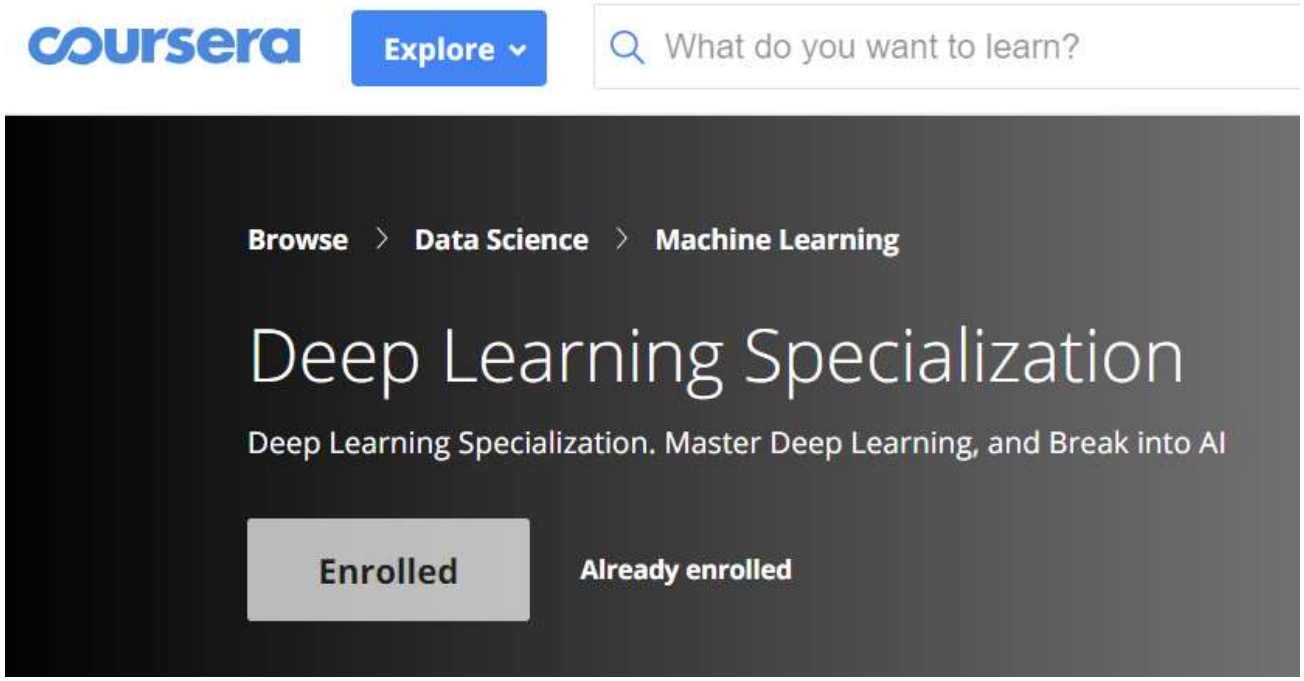
Data Visualization with python (by Coursera)

Your Future Path (7)

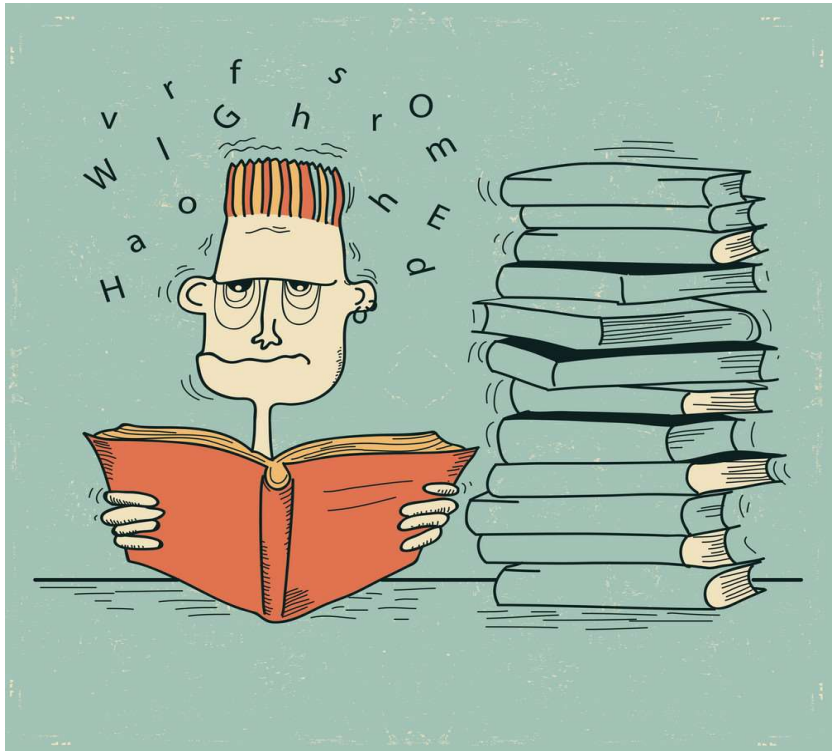
Machine Learning (by Coursera)

Your Future Path (8)

Deep Learning (A specialization by Coursera)



Do you have problem in understanding English?



100 Days Of ML Code Challenge

100 Days Of ML Code Challenge (Rule 1)

Make a public pledge to code or study machine learning for minimum 1 hour every day for the next 100 days via your favorite social platform using the #100DaysofMLCode Hashtag.

100 Days Of ML Code Challenge (Rule 2)

Make a public log of your work. Update it daily. You can also make a blog or vlog.

100 Days Of ML - LOG

Day 0 : June 30 , 2018

Today's Progress : I have setup all the things I needed to complete this challenge and also completed chosing the projects I will work on .

Thoughts : Hope this will be exiciting ,will help me in learning Machine Learning in a more effective way .

Day 1 : Jul 1 , 2018

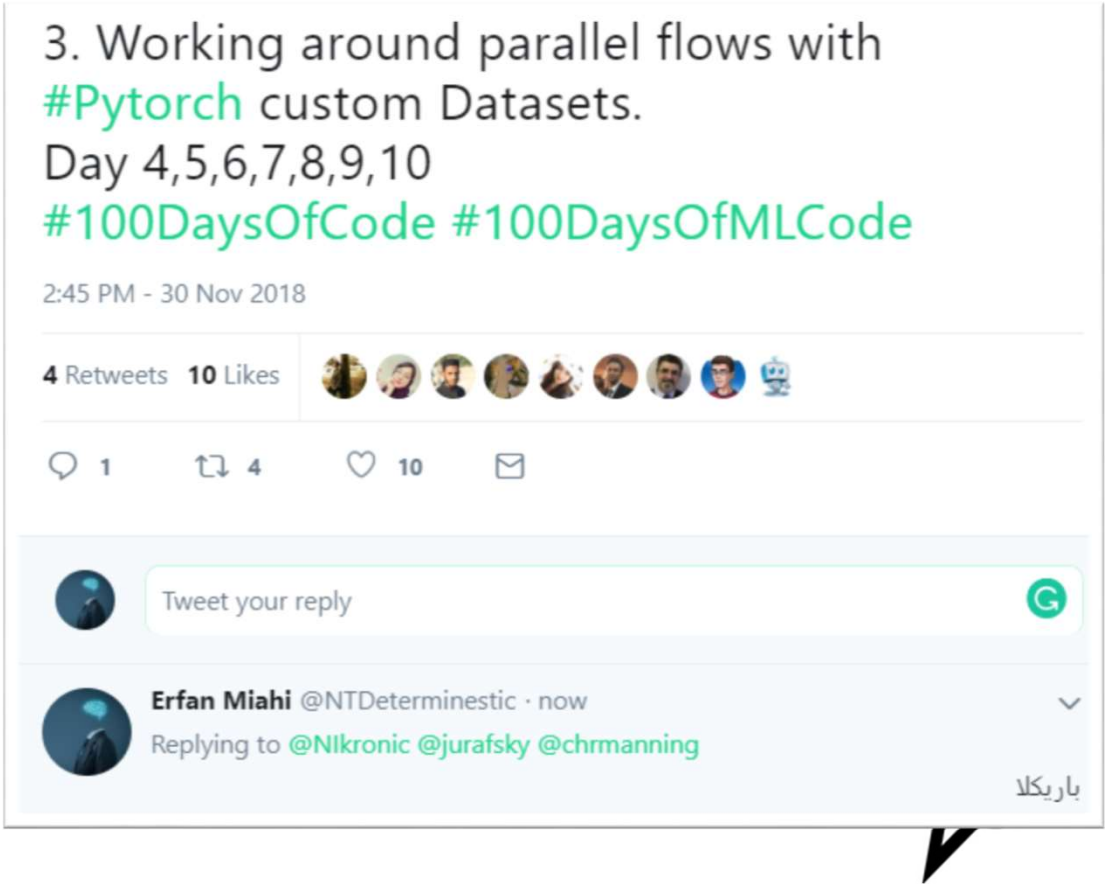
Today's Progress : I have completed data preparation for kaggle ml problem .

Thoughts : It is really challenging and many error occured , but I have debuged them . It was really fun .

Link of Work: Commit

100 Days Of ML Code Challenge (Rule 3)

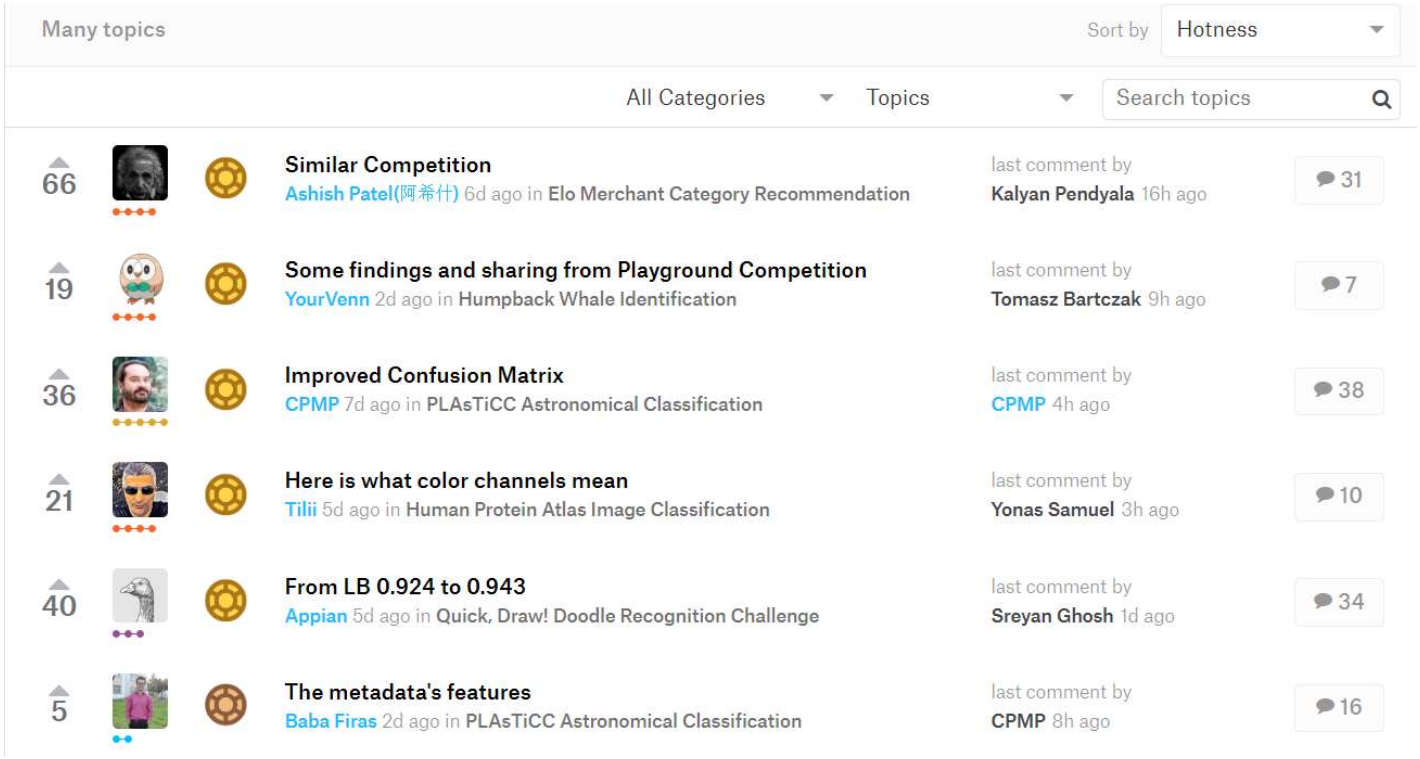
If you see someone make a post using the #100DaysofMLCode hashtag, encourage them via a 'like', 'share', or comment!



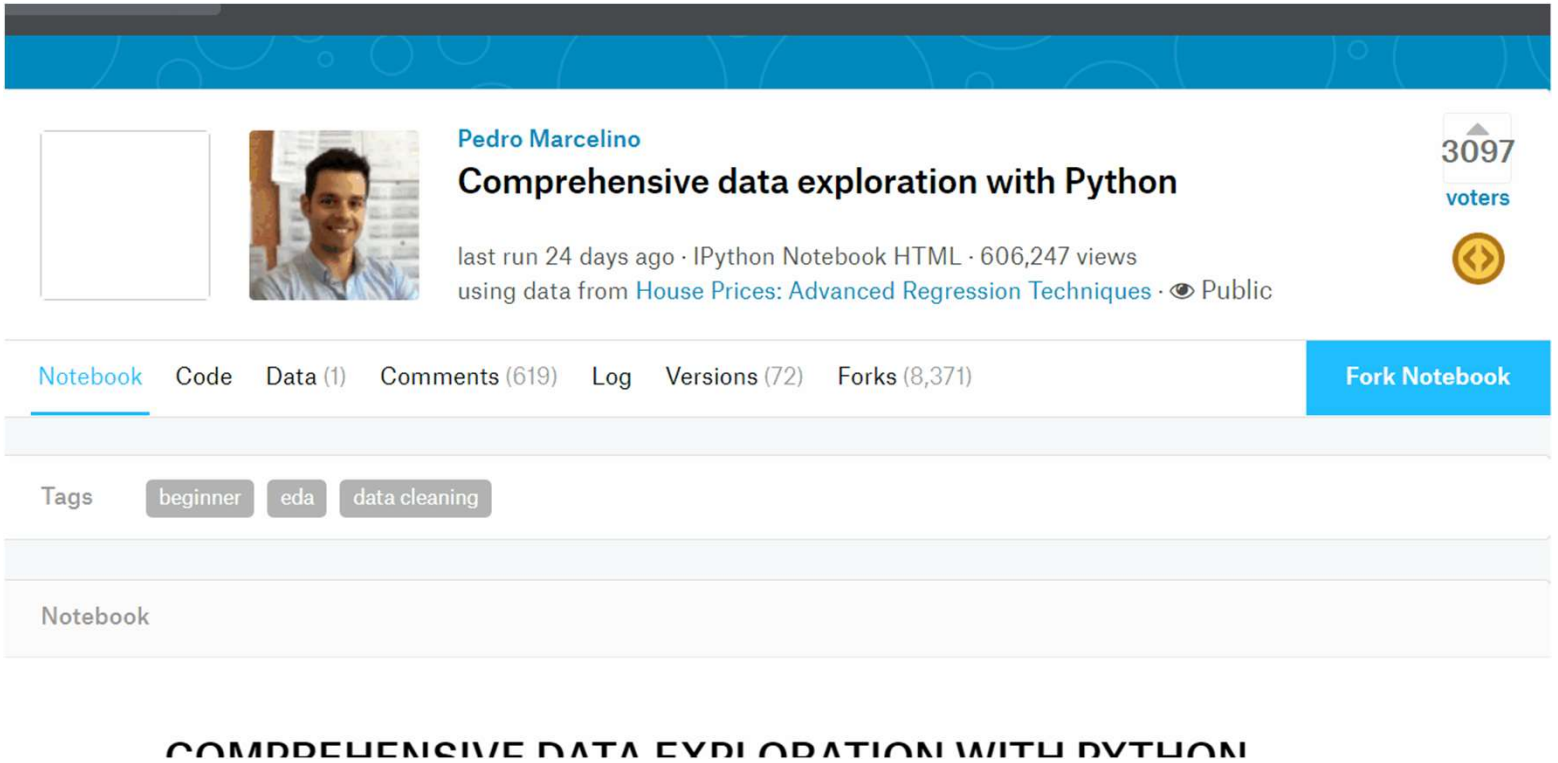
What is Kaggle?

- World's Largest Predictive Modeling Competition Platform
- Half a Million Members
- Companies host data challenges

Discussions



Kernels


Pedro Marcelino
Comprehensive data exploration with Python
last run 24 days ago · IPython Notebook HTML · 606,247 views
using data from House Prices: Advanced Regression Techniques · Public
3097
voters
Notebook
Code
Data (1)
Comments (619)
Log
Versions (72)
Forks (8,371)
Fork Notebook
Tags
beginner
eda
data cleaning
Notebook
COMPREHENSIVE DATA EXPLORATION WITH PYTHON

Competitions

308 Competitions

Passenger Screening Algorithm Challenge — $1,500,000
Improve the accuracy of the Department of Homeland Security's threat recognition algorithms
Featured · a year ago · terrorism, image data, object detection
518 teams

Zillow Prize: Zillow's Home Value Prediction (Zestimate) — $1,200,000
Can you improve the algorithm that changed the world of real estate?
Featured · a year ago · real estate, housing
3,779 teams

Data Science Bowl 2017 — $1,000,000
Can you improve lung cancer detection?
Featured · 2 years ago · healthcare, image data, binary classification
1,972 teams

Heritage Health Prize — $500,000
Identify patients who will be admitted to a hospital within the next year using historical claims data. (Ent...
Featured · 6 years ago
1,353 teams

Second Annual Data Science Bowl — $200,000
Transforming How We Diagnose Heart Disease
Featured · 3 years ago · image data, healthcare
773 teams

Why Compete?

- Prize Money
- Resume Enhancement
- Domain Knowledge Acquisition
- Data Science Tools and Techniques Learnings

Prize Money

- $$$$
  - Homeland Security $1.5 Million
  - Zillow $1.2 Million
- $$$
  - Nerve Segmentation $100K
  - March Madness $50K
  - RSNA Pneumonia Detection Challenge $30K
- $$
  - TrackML Particle Tracking Challenge $25K
  - LandMark Recognition $5000
  - SemiConductor Properties $5000

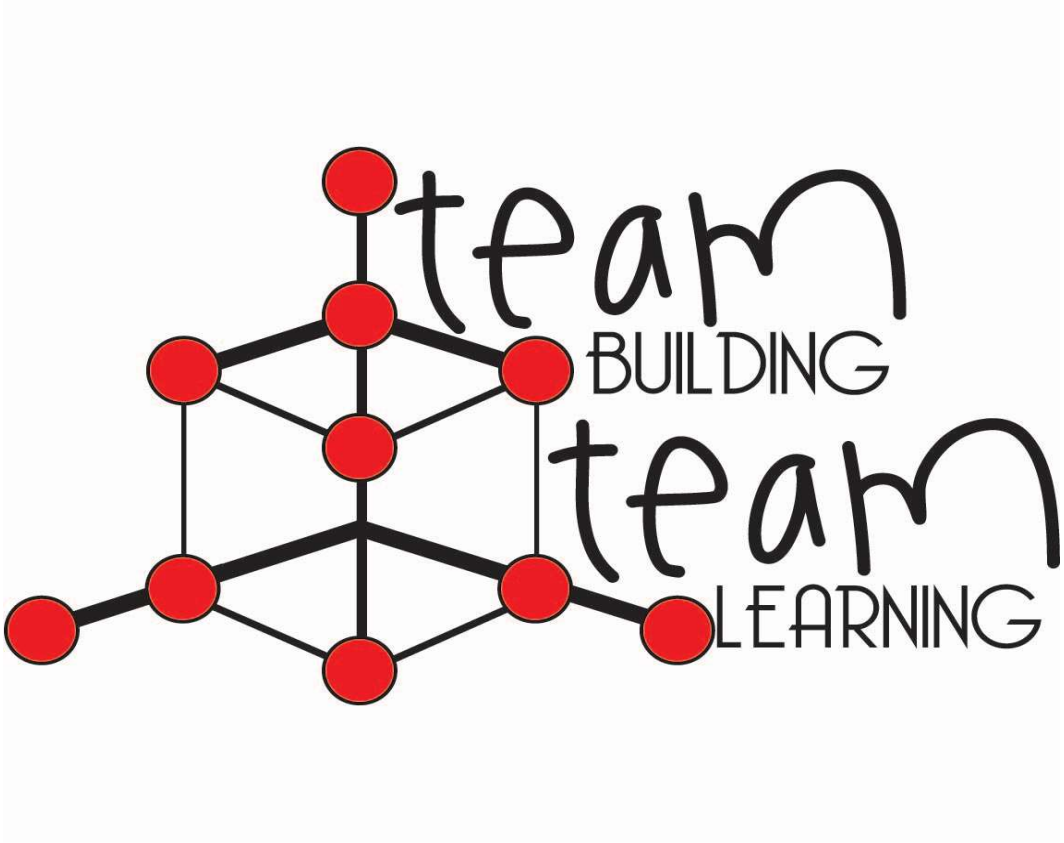
Stay motivated

- **Expectancy**: Your confidence of success.
- **Value**: both how rewarding a task will be when you finish it and how fun it is while you're doing it.
- **Impulsiveness**: can be thought of as distractibility.
- **Delay**: is how far off the reward seems to be.

Here is the motivation equation[13]:

$$Motivation = \frac{Expectancy \times Value}{Impulsiveness \times Delay}$$

Team Creation



Future

- Every month, one meetup
- Telegram & Facebook group

Social Media

- School of AI Telegram channel:

  @schoolofairasht

- School of AI Telegram group
- Facebook Group: RashtSchoolOfAi