

Erfan Miah

- 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

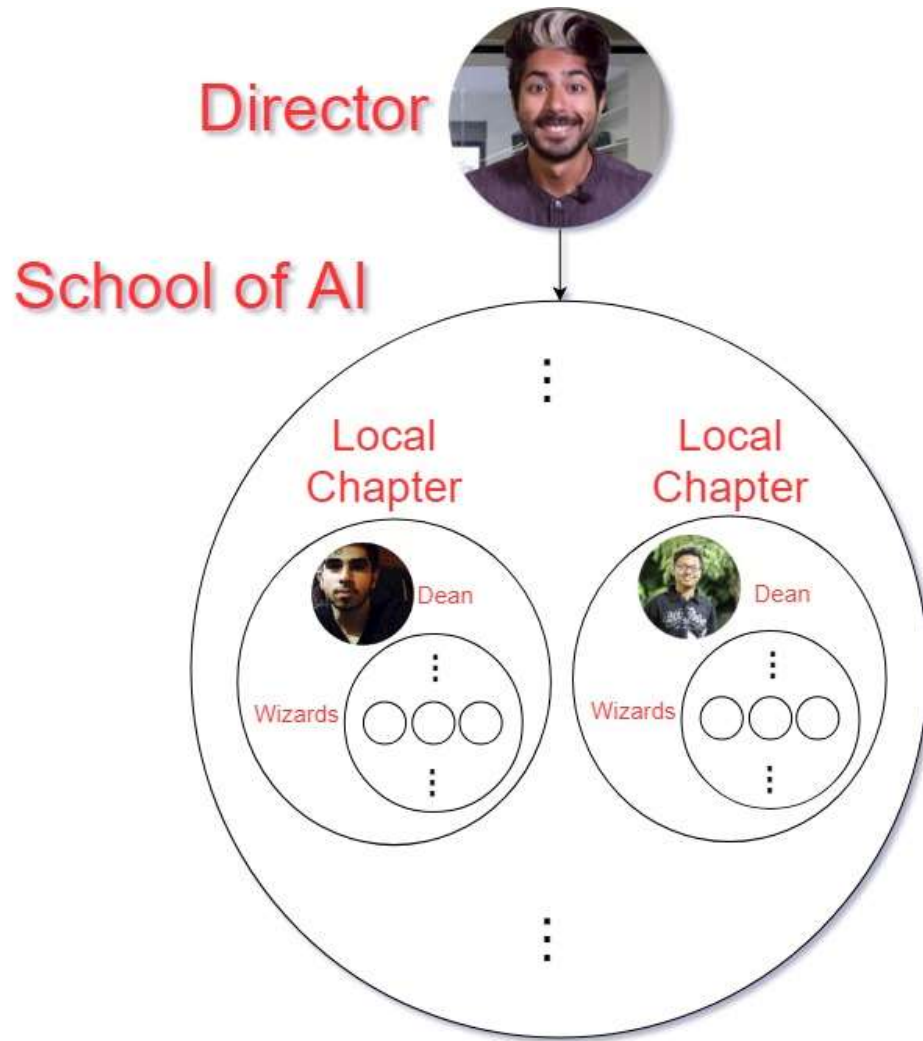


What's School of AI?

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?

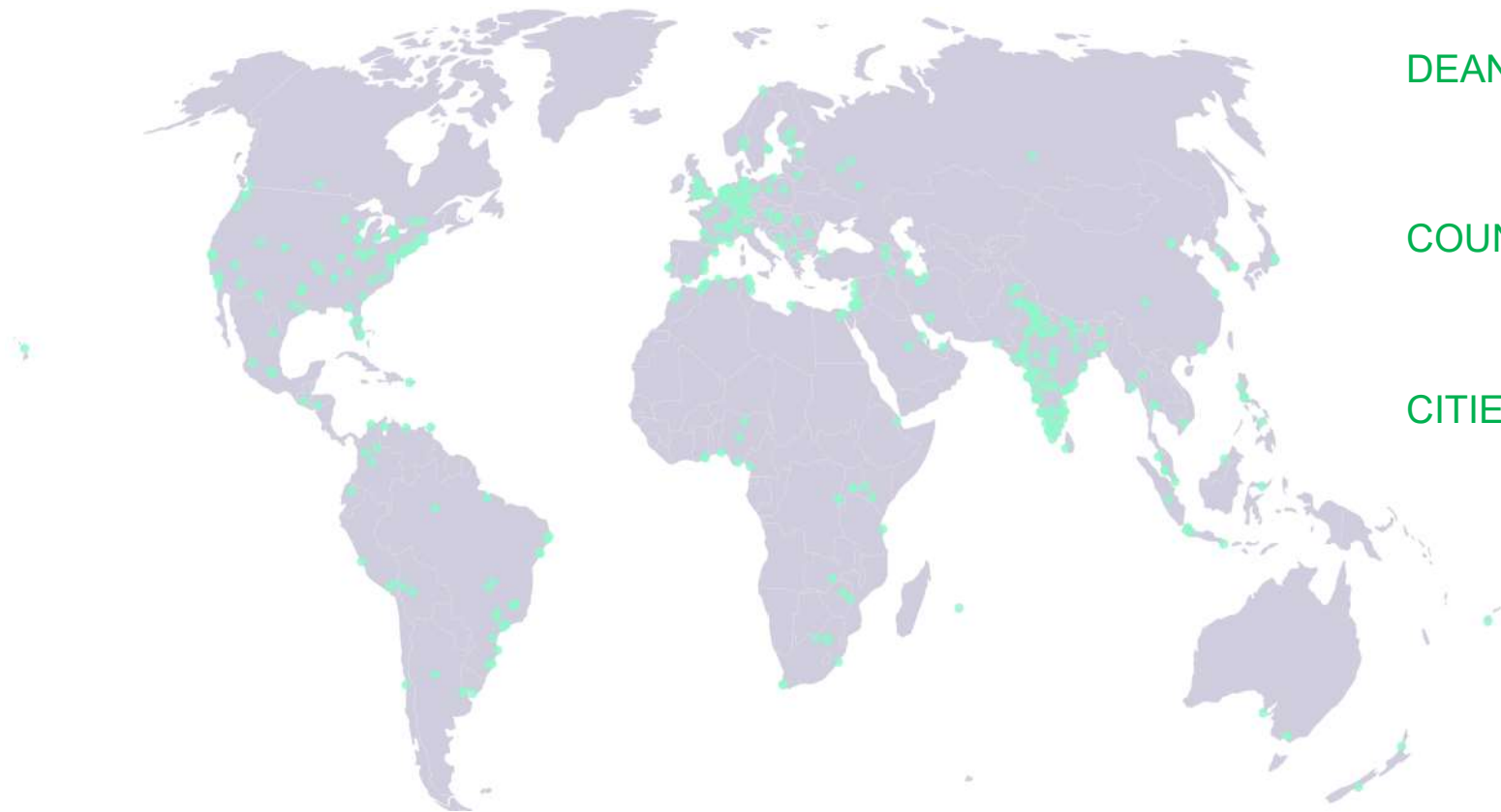
We are here to offer a **world-class AI education** to anyone on Earth **for free**. Our doors are open to all those **who wish to learn**.



Erfan Miah



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.



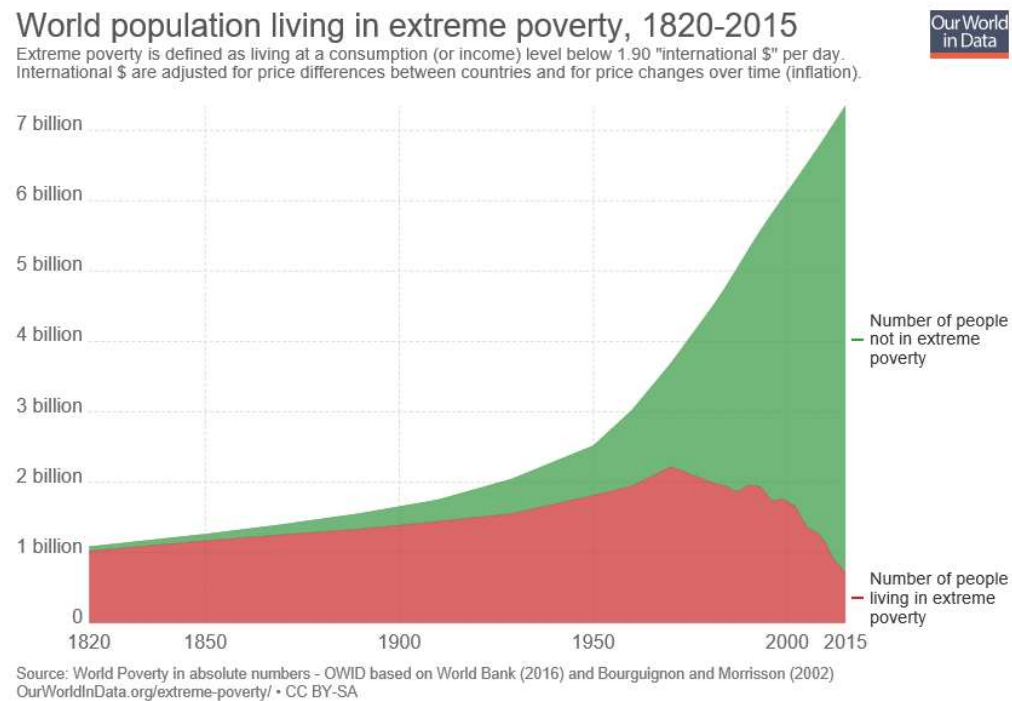
Our core values (Inspire and Educate)

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



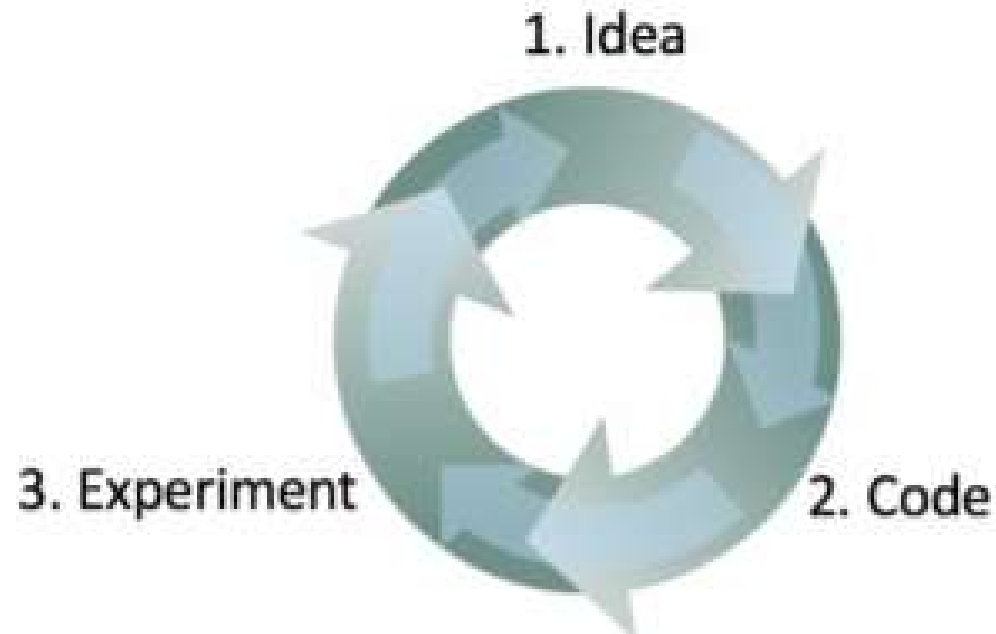
Our core values (Data Driven Optimism)

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.



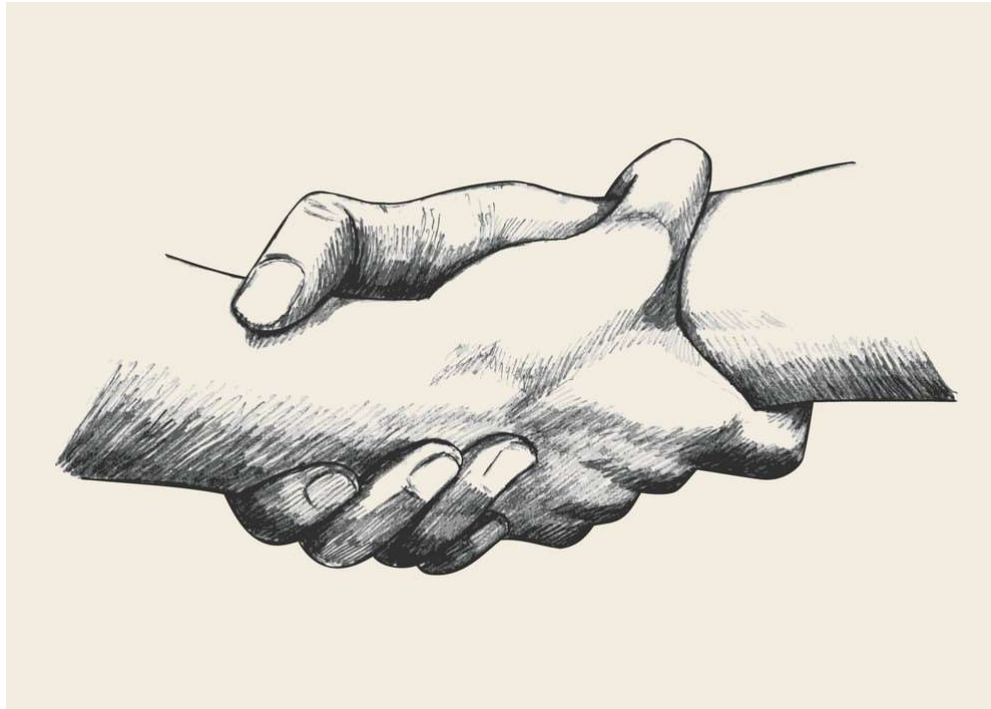
Our core values (Be Frugal)

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



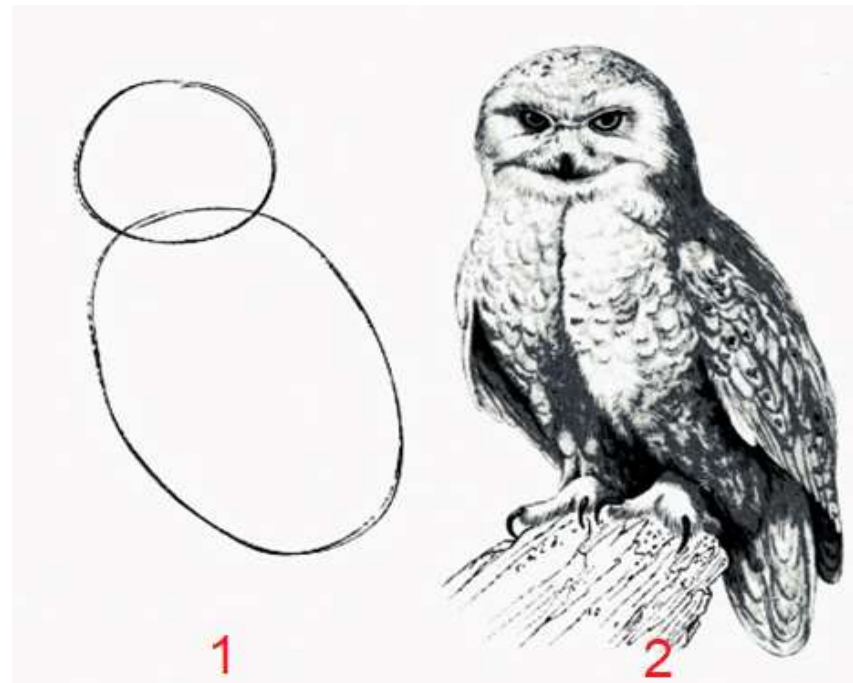
Our core values (Choose Love, not Fear)

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



Our core values (Draw the owl)

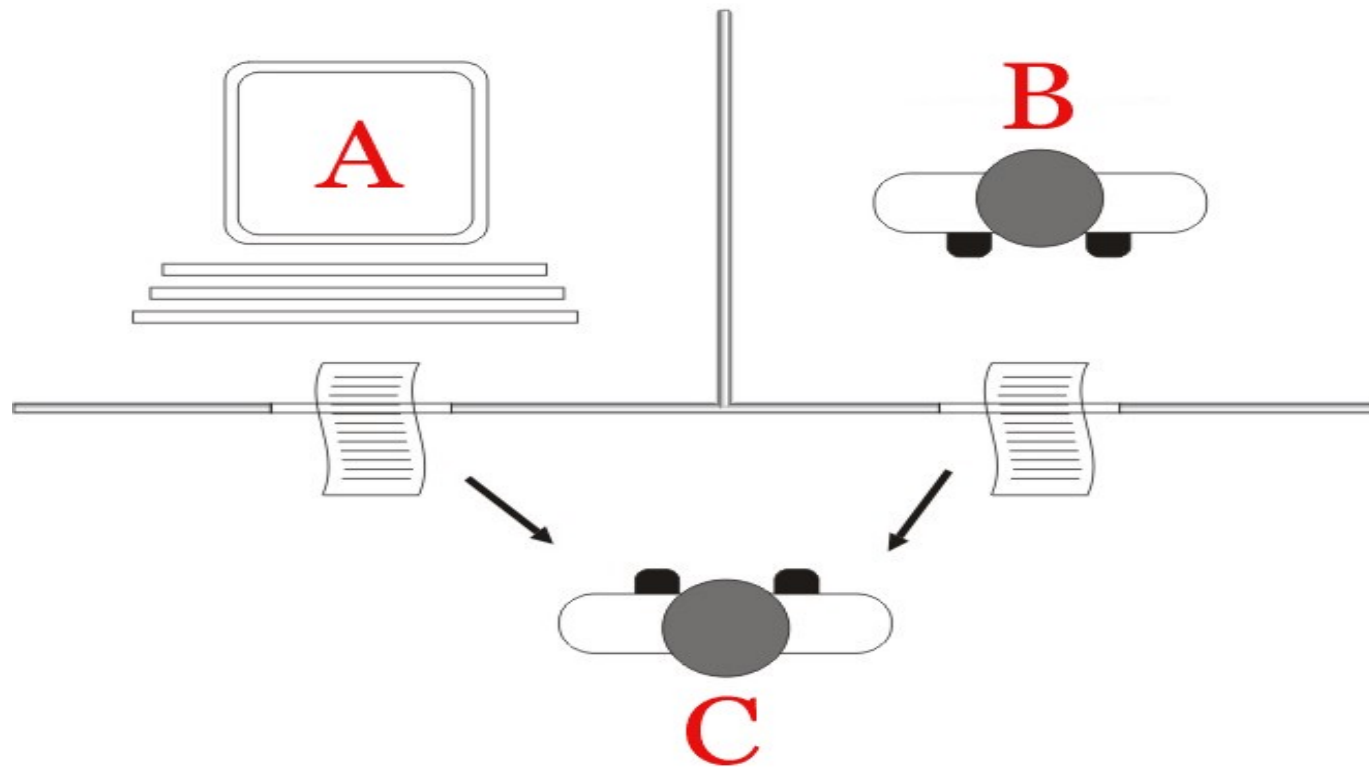
We're not always given instructions. So we take ownership and figure them out ourselves.



A brief history of Artificial Intelligence



Turing's test (1950)



Dartmouth Conference: the birth of AI (1956)

1956 Dartmouth Conference: The Founding Fathers of AI



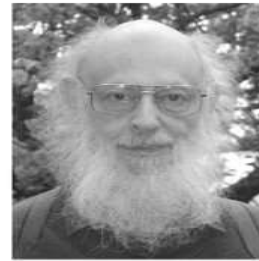
John McCarthy



Marvin Minsky



Claude Shannon



Ray Solomonoff



Alan Newell



Herbert Simon



Arthur Samuel



Oliver Selfridge



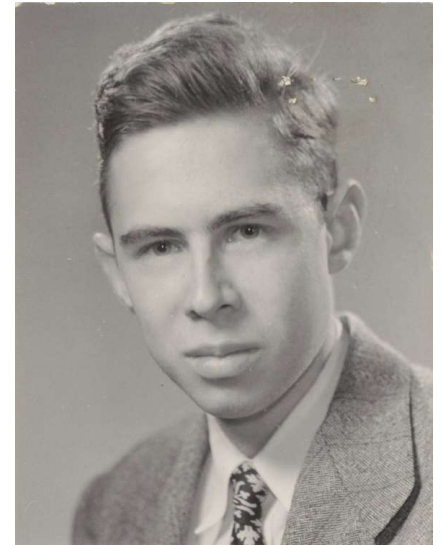
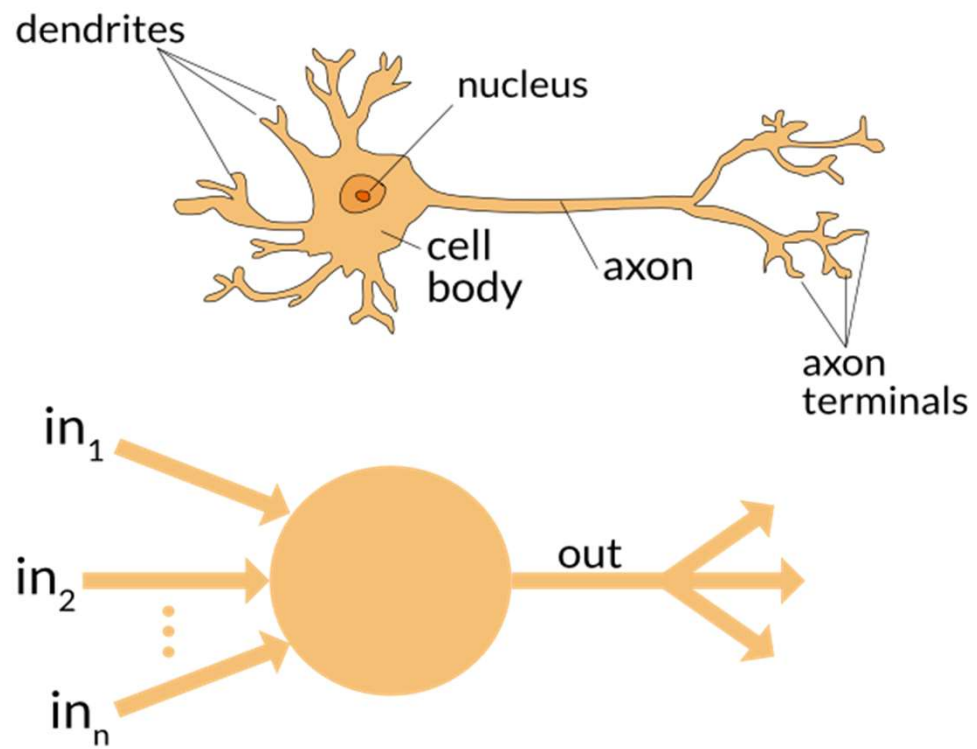
Nathaniel Rochester



Trenchard More



Perceptron (1957)



Frank Rosenblatt



First Chat-bot Eliza (1965)

```
Welcome to

      EEEEE  LL      IIII  ZZZZZZZ  AAAAA
      EE     LL      II     ZZ     AA   AA
      EEEEE  LL      II     ZZZ     AAAAAA
      EE     LL      II     ZZ     AA   AA
      EEEEE  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)



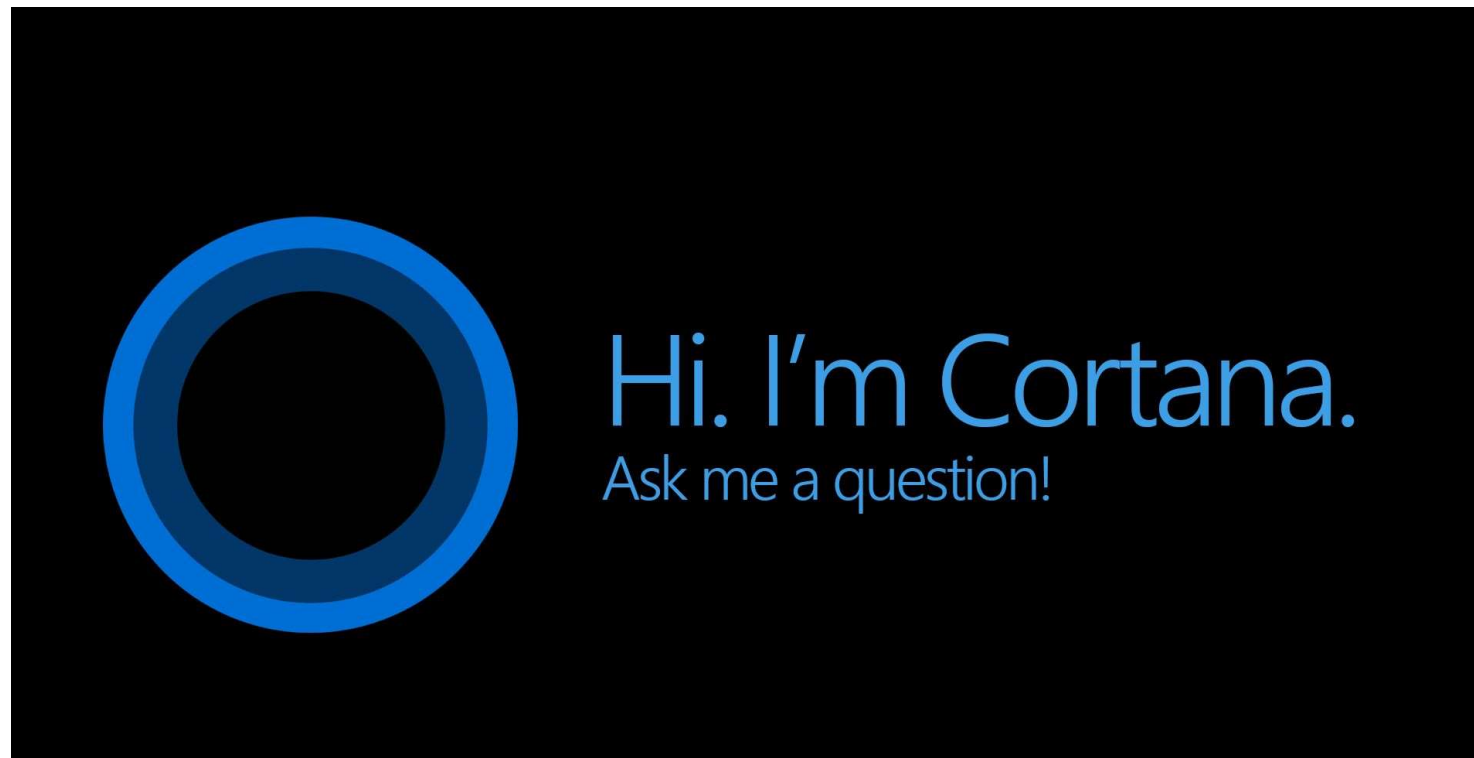
TV game show jeopardy defeated by AI (2011)



Apple's Siri (2011)



Microsoft Cortana (2014)



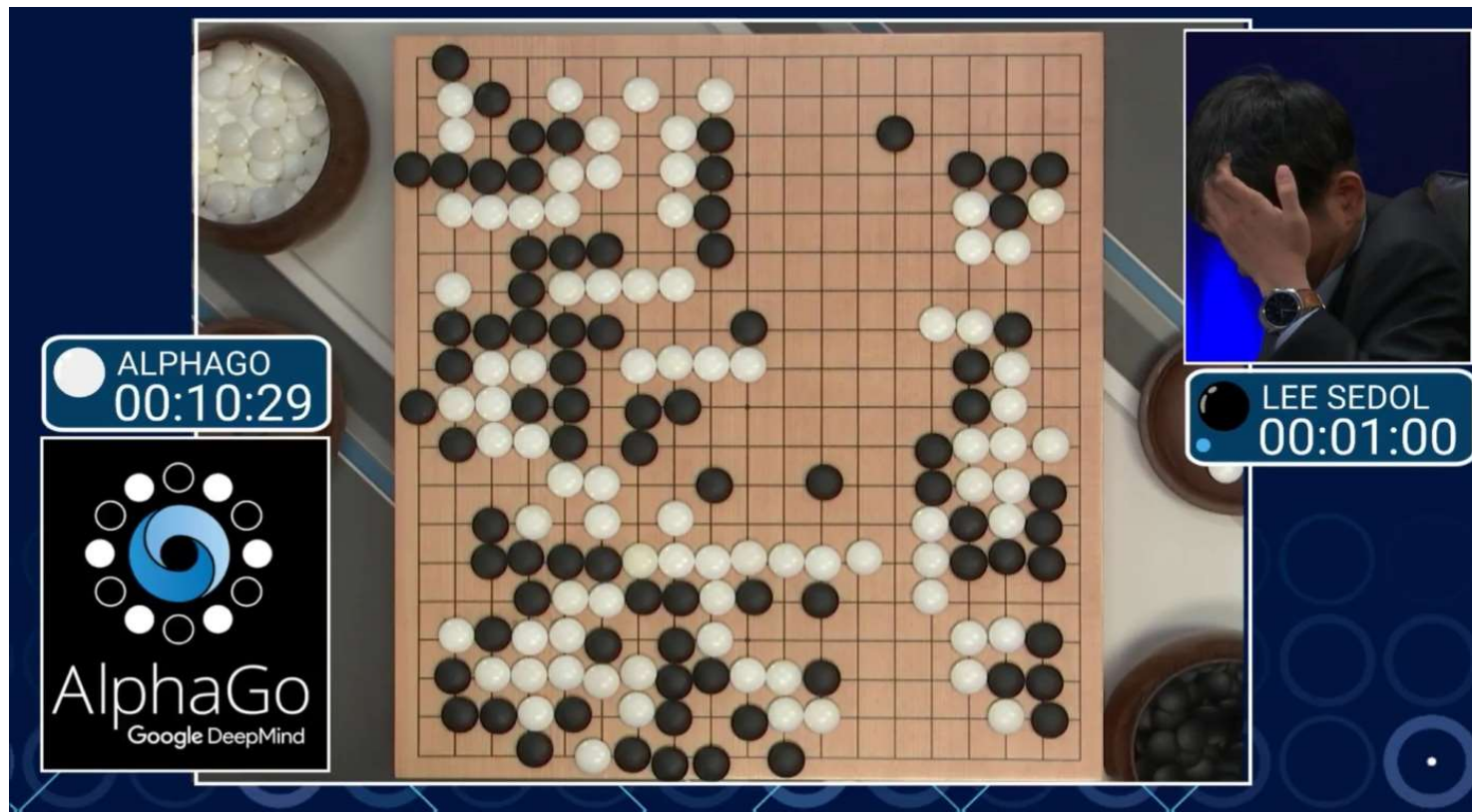
Face2Face (2016)



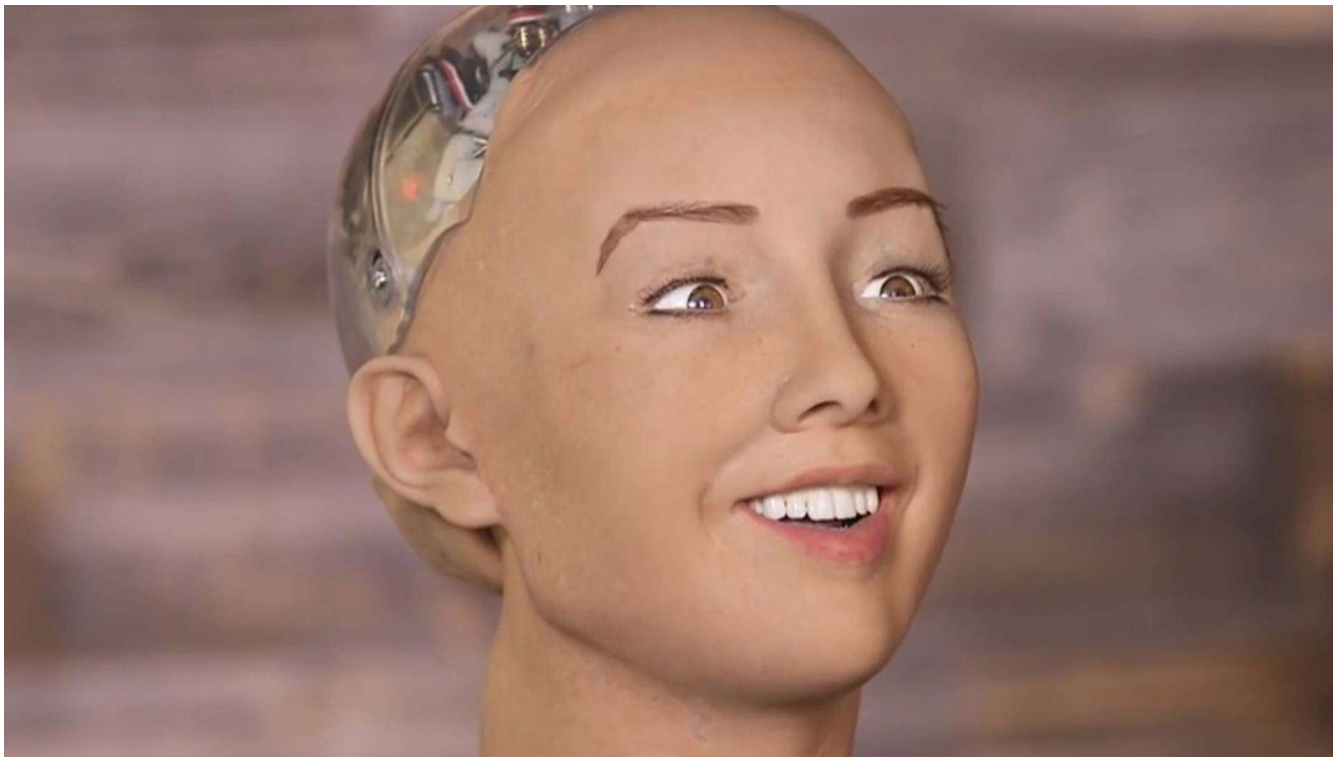
This dude
can make
Donald
Trump say
anything.



AlphaGo project (2015-2017)



Sophia robot (2016-2018)

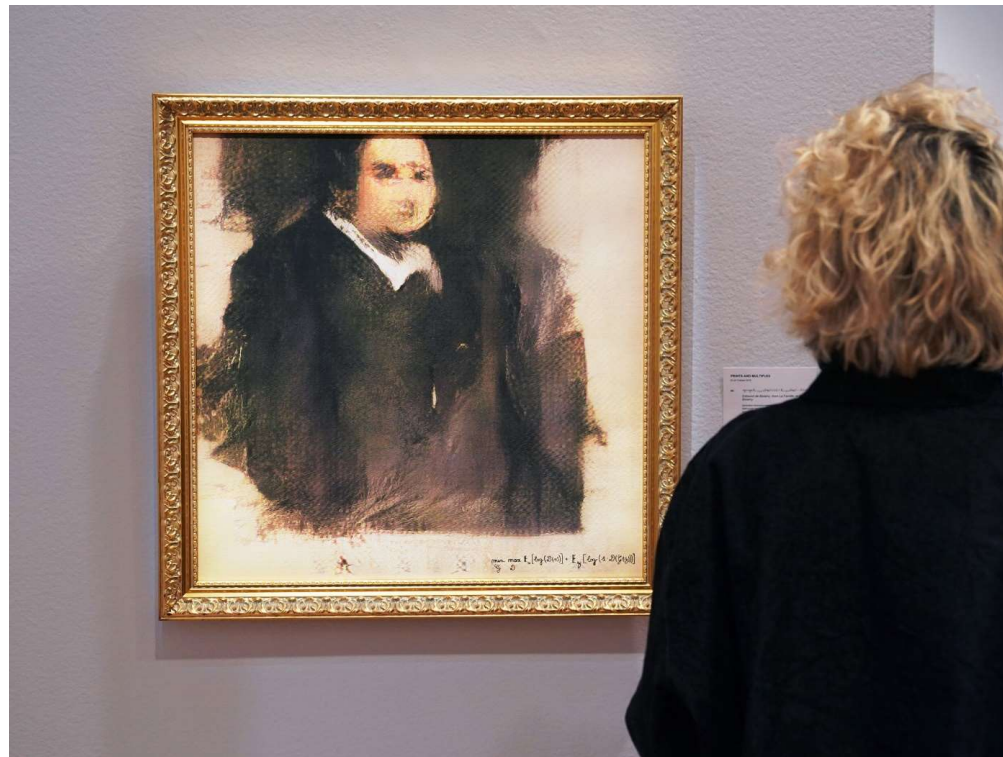


Dota2 Competition OpenAI (2017)



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...

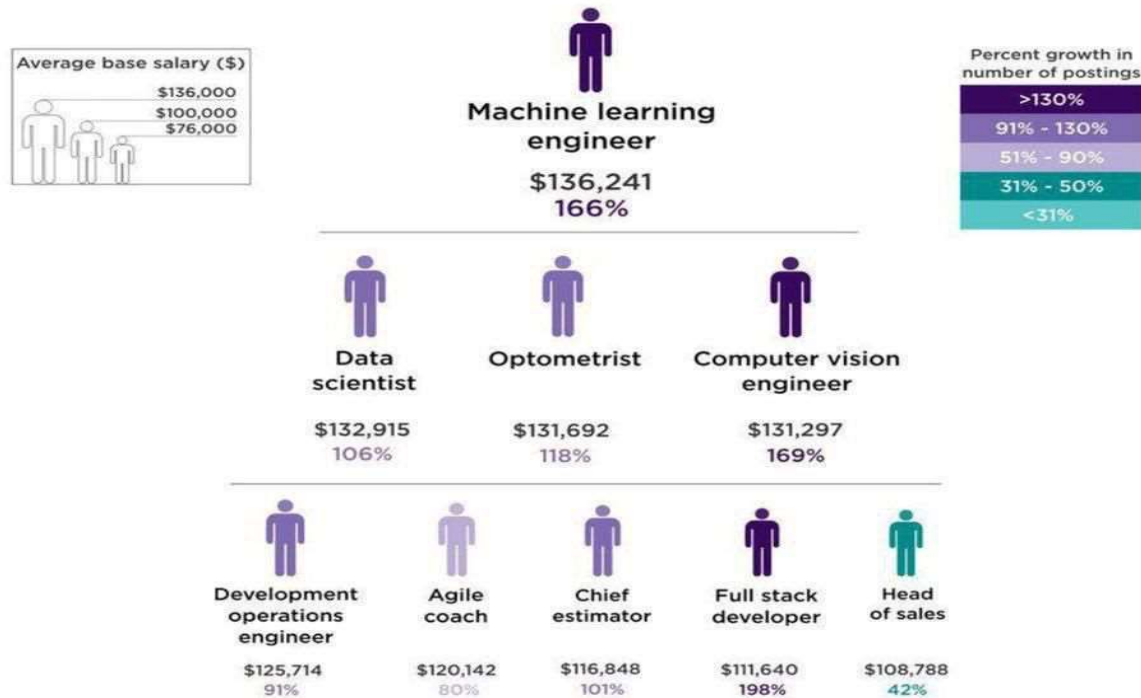


Iran AI related jobs



World AI related Jobs

The Best Jobs in the U.S. 2018 (Based on Salary and Opportunity)



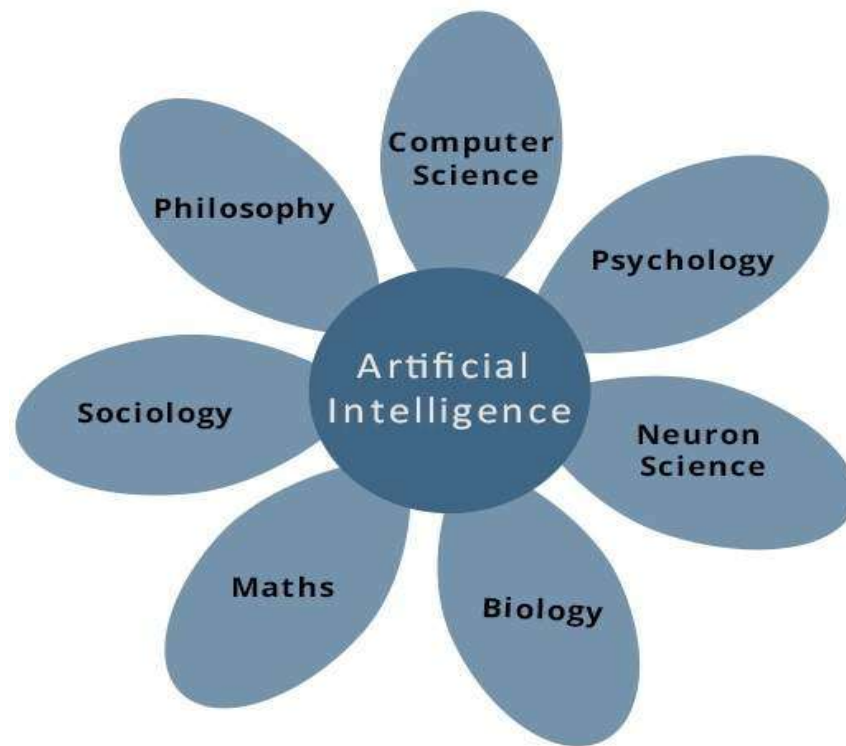
Introduction to Artificial Intelligence



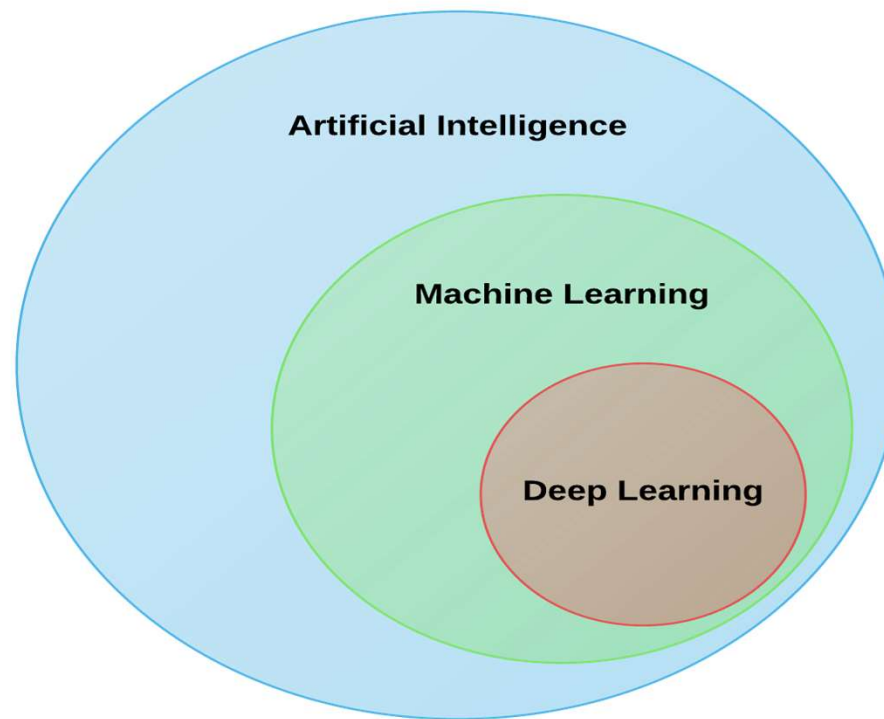
What is Artificial Intelligence?



AI related fields



AI vs ML vs DL



Solving a real world problem



Your learning Path



Your Future Path (1)

Linear Algebra (by MIT)

Home » Courses » Mathematics » Linear Algebra

Linear Algebra

COURSE HOME <


SYLLABUS

CALENDAR

VIDEO LECTURES

READINGS

ASSIGNMENTS



Instructor(s)
Prof. Gilbert Strang

MIT Course Number
18.06

As Taught In
Spring 2010

Level
Undergraduate

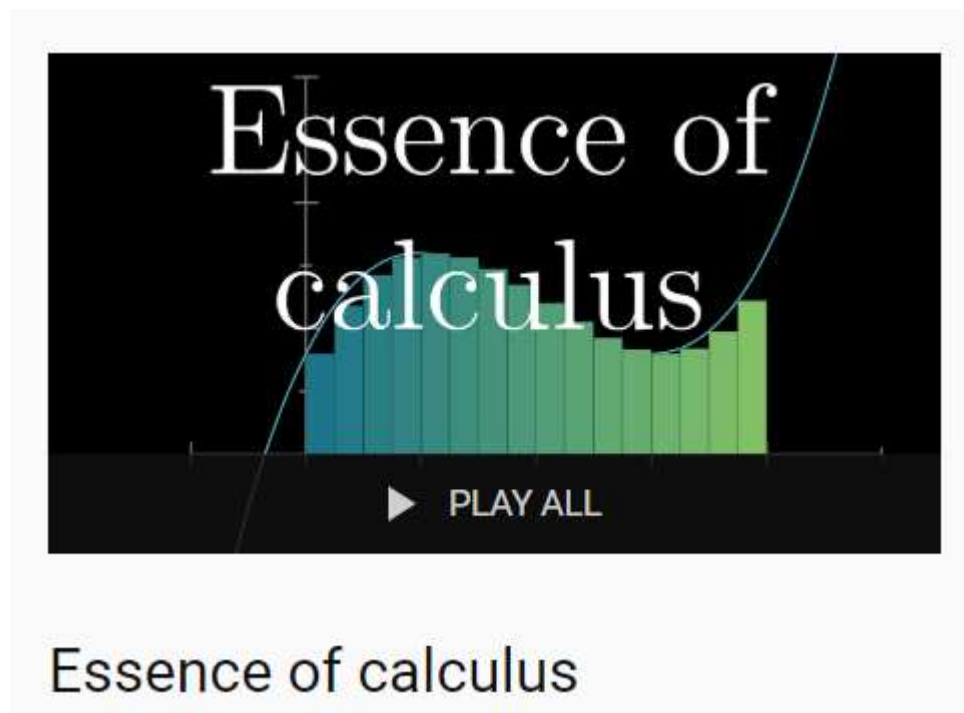
Translated Versions
[Türkçe](#)

CITE THIS COURSE



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**

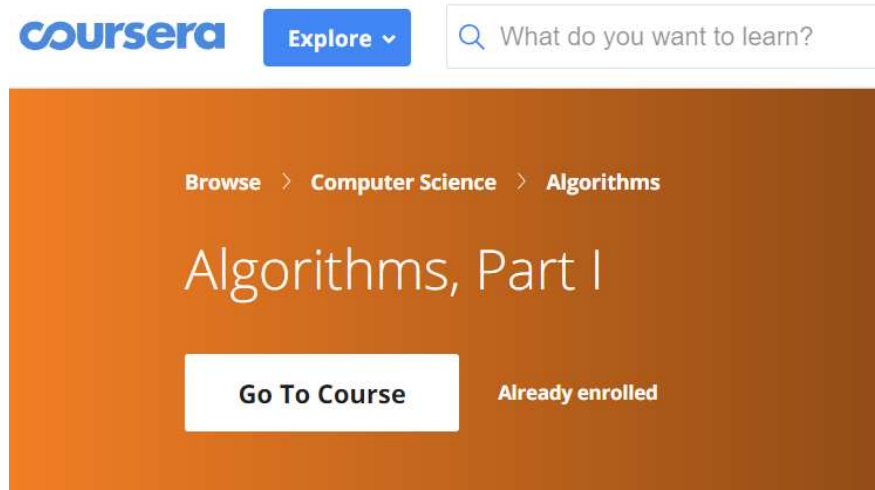
[See Prerequisites](#) 

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)

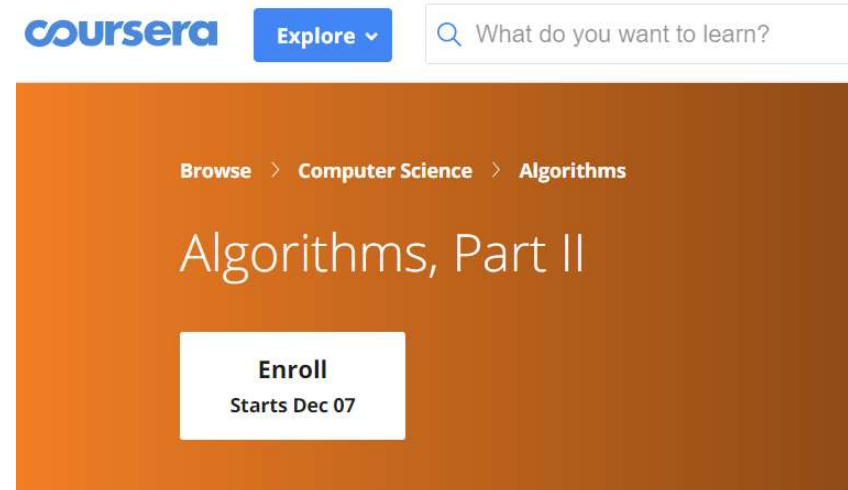


coursera Explore ▾ What do you want to learn?

Browse > Computer Science > Algorithms

Algorithms, Part I

Go To Course Already enrolled



coursera Explore ▾ What do you want to learn?

Browse > Computer Science > Algorithms


Algorithms, Part II

Enroll
Starts Dec 07



Your Future Path (5)

Learning python & Data Science together (by Coursera)



The screenshot shows the Coursera website interface. At the top, the Coursera logo is on the left, followed by a blue 'Explore' button with a dropdown arrow. To the right is a search bar with the placeholder text 'What do you want to learn?'. Below the navigation bar, a dark blue banner contains the breadcrumb 'Browse > Data Science > Data Analysis'. Underneath, it states 'This course is part of the **Applied Data Science with Python Specialization**'. The main title 'Introduction to Data Science in Python' is displayed in large white text. At the bottom of the banner, there is a yellow 'Go To Course' button on the left and the text 'Already enrolled' and 'Financial aid available' on the right.



Your Future Path (6)

Data Visualization with python (by Coursera)



The screenshot shows the Coursera website interface. At the top, there is the Coursera logo, an 'Explore' button with a dropdown arrow, and a search bar containing the text 'What do you want to learn?'. Below this, a dark blue banner contains the following text: 'Browse > Data Science > Data Analysis', 'This course is part of the **Applied Data Science with Python Specialization**', and the course title 'Applied Plotting, Charting & Data Representation in Python' in large white font. At the bottom of the banner, there is a yellow button labeled 'Go To Course' and the text 'Already enrolled' and 'Financial aid available'.



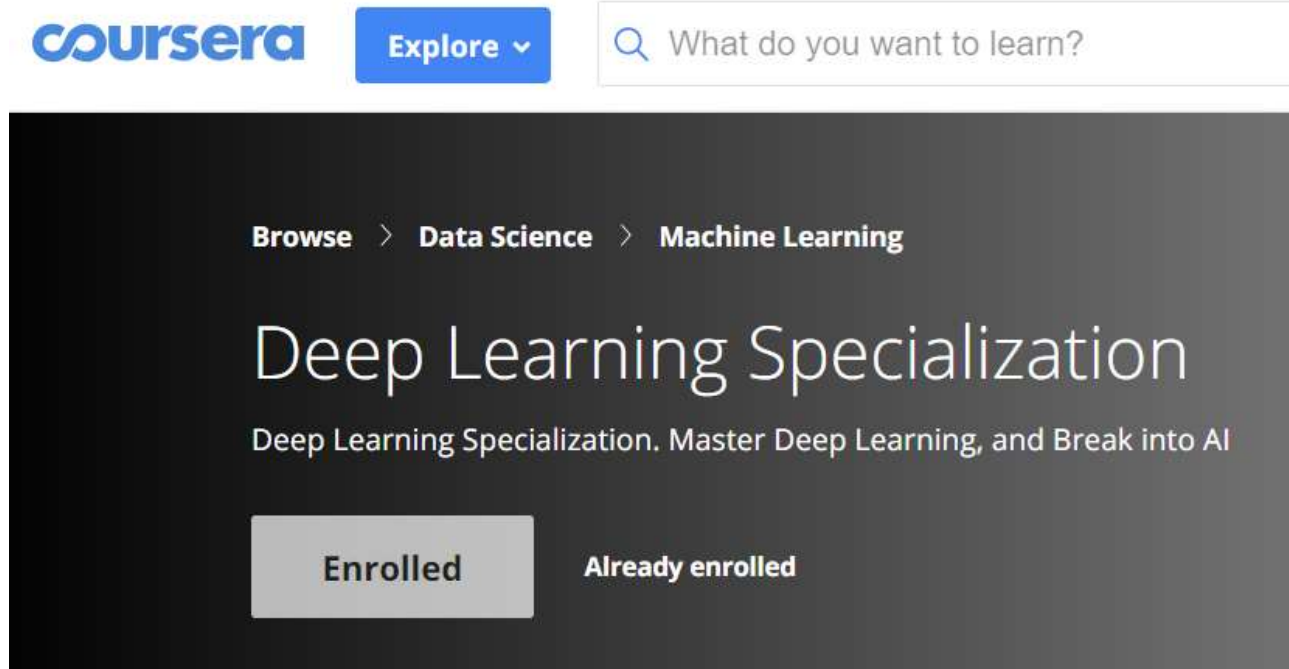
Your Future Path (7)

Machine Learning (by Coursera)



Your Future Path (8)

Deep Learning (A specialization by Coursera)



The screenshot shows the Coursera website interface. At the top left is the Coursera logo. Next to it is a blue button labeled "Explore" with a downward arrow. To the right is a search bar with a magnifying glass icon and the placeholder text "What do you want to learn?". Below these elements is a dark gray banner. Inside the banner, the breadcrumb "Browse > Data Science > Machine Learning" is displayed. The main title "Deep Learning Specialization" is prominently shown in white. Below the title, the subtitle "Deep Learning Specialization. Master Deep Learning, and Break into AI" is visible. At the bottom of the banner, there are two buttons: "Enrolled" (highlighted with a light gray background) and "Already enrolled" (in white text on a dark background).



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 choosing the projects I will work on .

Thoughts : Hope this will be exciting ,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 occurred , but I have debugged 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!

3. Working around parallel flows with [#Pytorch](#) custom Datasets.
Day 4,5,6,7,8,9,10
[#100DaysOfCode](#) [#100DaysOfMLCode](#)

2:45 PM - 30 Nov 2018

4 Retweets 10 Likes



1



4



10



Tweet your reply



Erfan Miah @NTDeterminestic · now

Replying to [@Nikronic](#) [@jurafrsky](#) [@chrmaning](#)

باریکلا

What is Kaggle?















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



Discussions


Many topics Sort by Hotness


All Categories Topics Search topics

66			Similar Competition Ashish Patel(阿希什) 6d ago in Elo Merchant Category Recommendation	last comment by Kalyan Pendyala 16h ago	31
19			Some findings and sharing from Playground Competition YourVenn 2d ago in Humpback Whale Identification	last comment by Tomasz Bartczak 9h ago	7
36			Improved Confusion Matrix CPMP 7d ago in PLAsTiCC Astronomical Classification	last comment by CPMP 4h ago	38
21			Here is what color channels mean Tili 5d ago in Human Protein Atlas Image Classification	last comment by Yonas Samuel 3h ago	10
40			From LB 0.924 to 0.943 Appian 5d ago in Quick, Draw! Doodle Recognition Challenge	last comment by Sreyan Ghosh 1d ago	34
5			The metadata's features Baba Firas 2d ago in PLAsTiCC Astronomical Classification	last comment by CPMP 8h ago	16




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 Improve the accuracy of the Department of Homeland Security's threat recognition algorithms <i>Featured</i> · a year ago · terrorism, image data, object detection	\$1,500,000 518 teams
	Zillow Prize: Zillow's Home Value Prediction (Zestimate) Can you improve the algorithm that changed the world of real estate? <i>Featured</i> · a year ago · real estate, housing	\$1,200,000 3,779 teams
	Data Science Bowl 2017 Can you improve lung cancer detection? <i>Featured</i> · 2 years ago · healthcare, image data, binary classification	\$1,000,000 1,972 teams
	Heritage Health Prize Identify patients who will be admitted to a hospital within the next year using historical claims data. (Ent... <i>Featured</i> · 6 years ago	\$500,000 1,353 teams
	Second Annual Data Science Bowl Transforming How We Diagnose Heart Disease <i>Featured</i> · 3 years ago · image data, healthcare	\$200,000 773 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

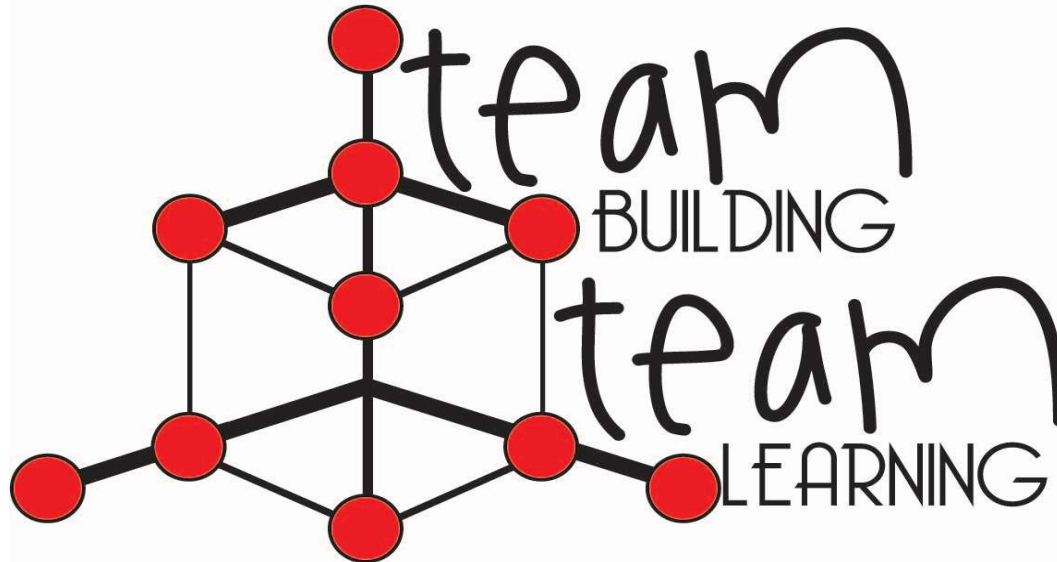
- **Expectancy:** Your confidence of success.
- **Value:** both how rewarding a task will be when you finish it and how fun it is while you're doing it.
- **Impulsiveness:** can be thought of as distractibility.
- **Delay:** is how far off the reward seems to be.

Here is the motivation equation¹³:

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



Team Creation



Future

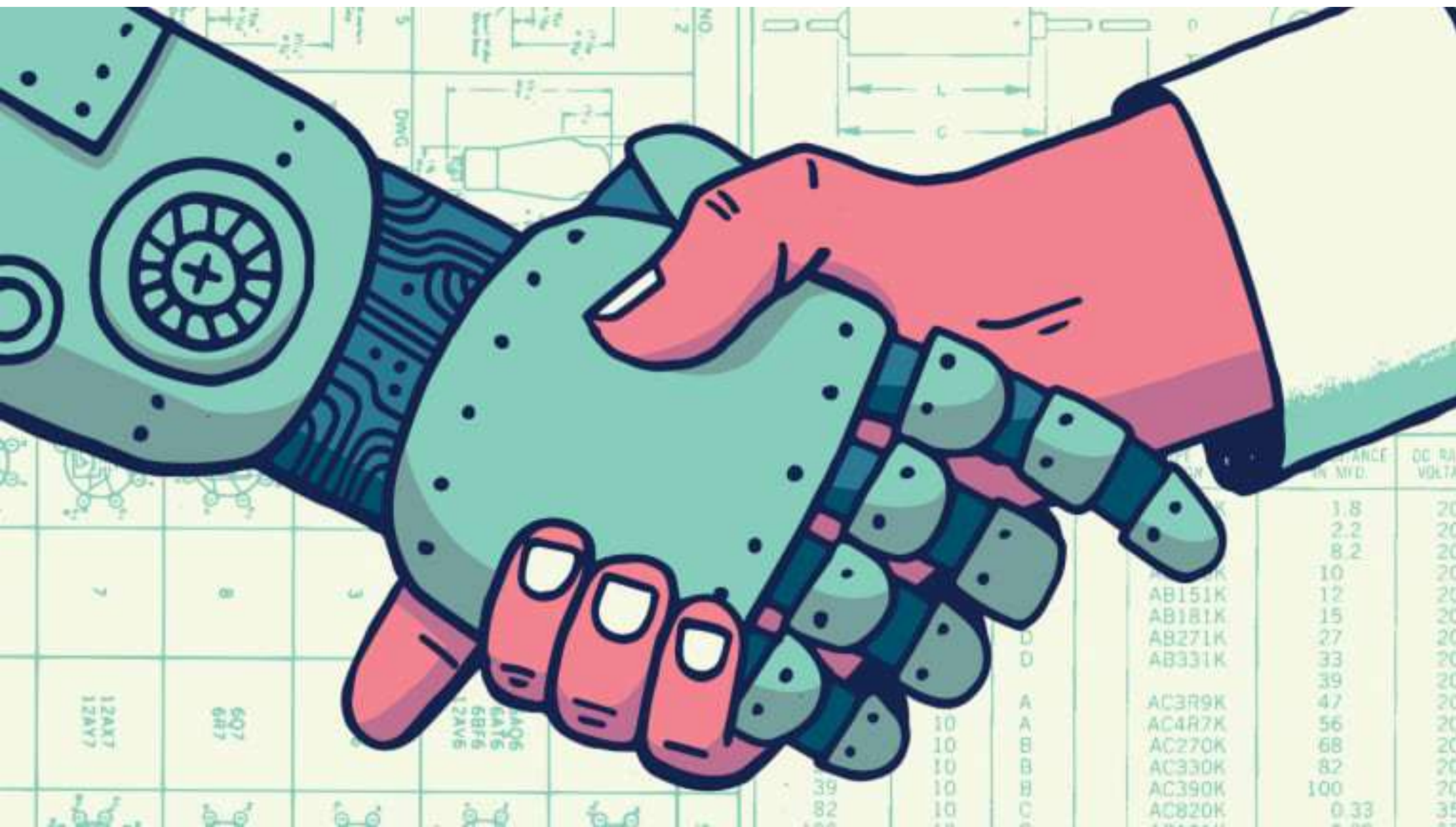
- Every month, one meetup
- Telegram & Facebook group



Social Media

- School of AI Telegram channel:
[@schoolofairasht](#)
- School of AI Telegram group
- Facebook Group: RashtSchoolOfAi





	DC RATING	DC RATING
	IN MYD.	VOLTA
	1.8	20
	2.2	20
	8.2	20
	10	20
AB151K	12	20
AB181K	15	20
AB271K	27	20
AB331K	33	20
	39	20
AC3R9K	47	20
AC4R7K	56	20
AC270K	68	20
AC330K	82	20
AC390K	100	20
AC820K	0.33	35