



# **Mohamed Noordeen Alaudeen**

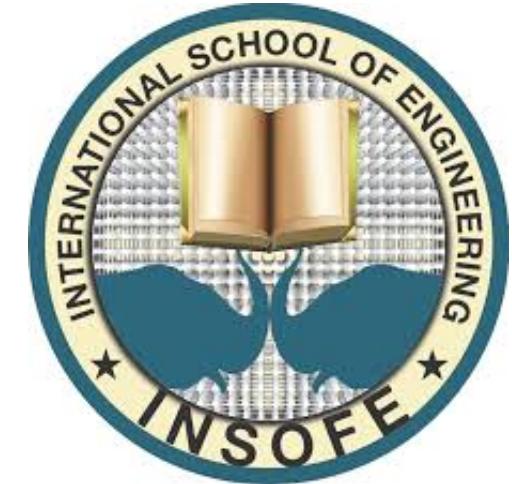
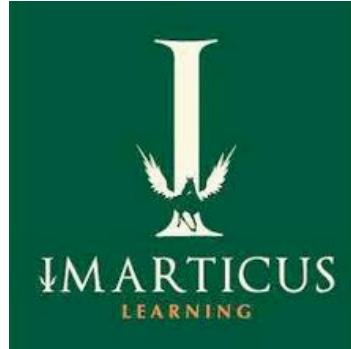
**Lead Data Scientist**

logitech

**greatlearning**  
*Learning for Life*

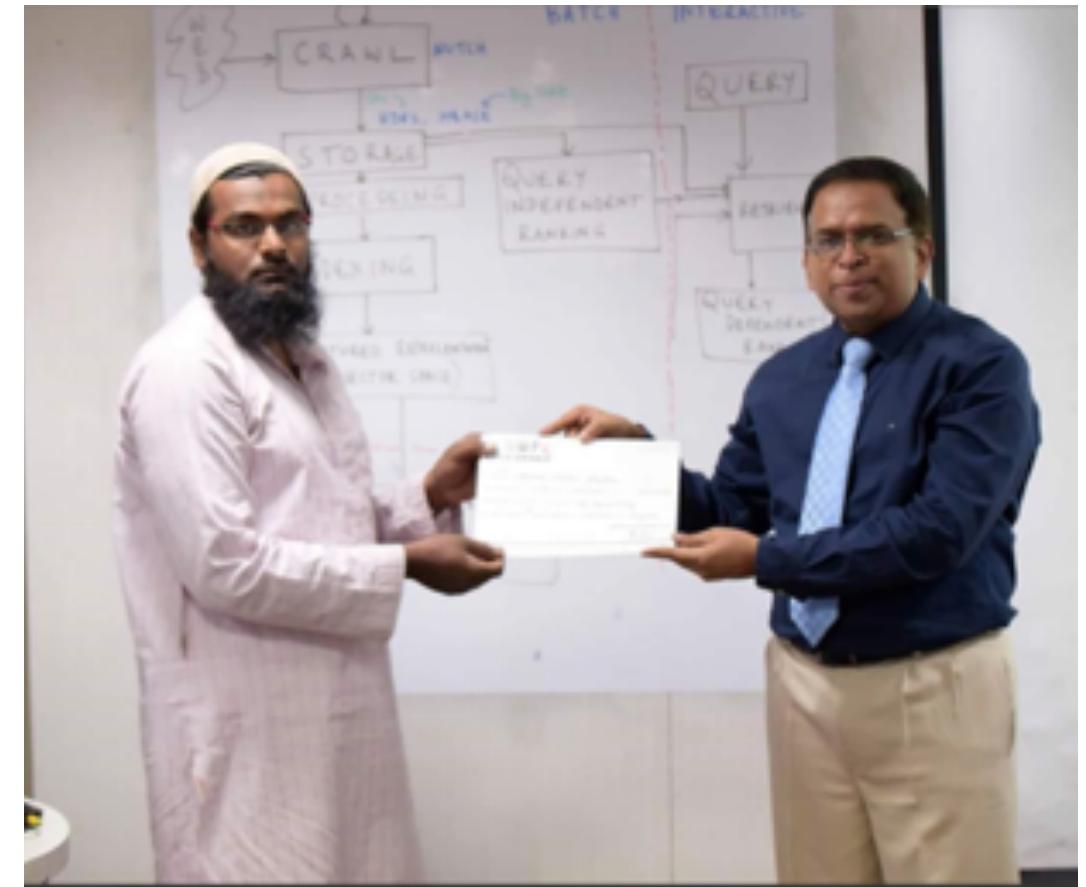
**TIGER**  
ANALYTICS

Packt



# ABOUT ME

# Won Hackathons



# Best project award



# Best Student of the batch



# JOURNEY OF MACHINE LEARNING AND HOW TO TAME IT

Dr. Rakesh Kumar  
SSN Institute of Technology



College Connects



# Partnering with colleges and Research Institute





Blogger



## MY WORK OUTSIDE THE WORK

- <https://github.com/nursnaaz>
- <https://www.linkedin.com/in/nursnaaz/>
- <http://www.technaaz.com/>
- <https://stackoverflow.com/users/6949469/nursnaaz>
- Authored a Book



Set your status

# Noordeen

nursnaaz

Lead Data Scientist at Logitech.  
Passionate in Machine Learning.  
Aspiring candidate with ardent  
desire to excel in the position  
where ever I am.

@Logitech

Chennai

[nursnaaz@gmail.com](mailto:nursnaaz@gmail.com)

Overview

Repositories 84

Projects 0

Stars 12

Followers 128

Following 18

## Popular repositories

Customize your pins

### Inceptez

Jupyter Notebook ★ 14 ⚡ 50

### CheatSheet

Machine learning cheatsheets

Jupyter Notebook ★ 10 ⚡ 15

9

### Data-Science-Training-Python-

This is a material for 2 days machine learning workshop  
conducted in Chennai on Jan 6th and 7th

Jupyter Notebook ★ 9 ⚡ 38

### Batch-1-Beseant-Tech

Hi all the content related to Data Science training

R ★ 7 ⚡ 9

### KafkaProducerConsumer

Time calculation of kafka to produce and consume a  
message.

Java ★ 6 ⚡ 1

# GitHub

### SVM

Predicting cancer using SVM model  
<https://github.com/nursnaaz>

R ★ 5 ⚡ 4

Profile Activity Developer Story Edit Profile & Settings

Meta User Network Profile Nursnaaz

REPUTATION  
430 top 4% this quarter

BADGES 7 19

IMPACT ~92k people reached

Next tag badge python 21/100 score 12/20 answers

Newest Constituent Next badge Civic Duty 138/300

34 posts edited 2 helpful flags 138 votes cast

summary answers questions tags badges favorites bounties reputation all actions responses votes

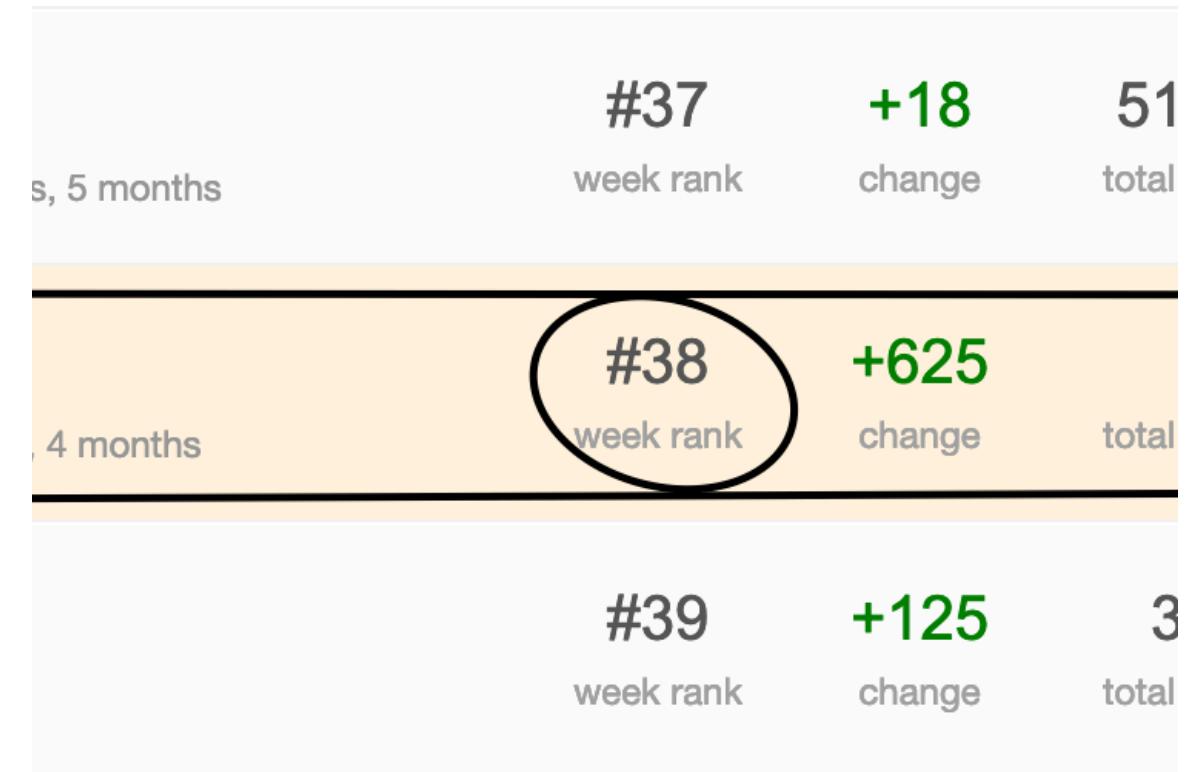
Answers (21) votes activity newest

Reputation (430) top 4% this quarter

How do I download NLTK data? Adding new column to existing DataFrame in Python pandas Renaming columns in pandas Delete group if NaN is present anywhere in multiple columns What is tail recursion?

+40 Adding new column to existing DataFrame in Python pandas -2 How do I install the OpenSSL libraries on Ubuntu? +10 Renaming columns in pandas +10 Delete group if NaN is present anywhere in multiple columns

View more → View more →



# Stack overflow

<https://stackoverflow.com/users/6949469/nursnaaz>



## Mohamed Noordeen

Lead Data Scientist | Machine Learning, Deep learning  
Mentor | Open source contributor | Python Expert  
Architect

Chennai, Tamil Nadu, India

Add profile section ▾

More...



Connections  
(20,460)



Groups (35)



Companies (147)



Hashtags (34)

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I had the privilege of being Mohamed Noordeen's Mentor. He is a very studious and dedicated guy to have in any team. His ability to grasp things at the speed of thought has amazed me. His dedication and passion for learning new cutting edge technologies in Big Data and Data Science space is ... [See full profile](#)

I know Noordeen since he started his graduation. Right from academics to tech learning, he is always an aspiring learner. He had a great passion to do higher studies which he is fulfilling now by doing certifications in cutting edge technologies like Data, Machine Learning and Data science. His program... [See full profile](#)

Mohamed Noordeen has all the right qualities to do well personally and professionally. His dedication to learning Data Science is amply visible from the fact that he traveled every weekend from Chennai to Bengaluru for a duration of nearly 6 months to do our rigorous certificate program. In a c... [See full profile](#)

# Linkedin

<https://www.linkedin.com/in/nursnaaz/>

JAN  
4

## Data Preprocessing

### 1. Why preprocess the data?

A. Data in the real world is Dirty...

- a. Incomplete Data: Lacking attribute values, Lacking certain attributes of interest, or containing only aggregate data
- b. e.g. Occupation=“ ”, year salary = “13.000”, ...

B. Inconsistent Data: Containing discrepancies in codes or names

- a. e.g. Age=“42” Birthday=“03/07/1997”
- b. Previous rating “1,2,3”, Present rating “A, B, C” Discrepancy between duplicate records

C. Noisy Data: Containing errors or outliers

- a. e.g. Salary=“-10”, Family=“Unknown”, ...

JUN  
8

## Tech Trends

### AWS Automation with Boto3

Posted on: Jan 26, 2017  
by: Michael J

# Blog

<http://www.technaaz.com/>

# Data Science with Python

Combine Python with machine learning principles to discover hidden patterns in raw data



Rohan Chopra, Aaron England  
and Mohamed Noordeen Alaudeen

Co-Author of a  
Book

Packt Publisher

Learn by doing  
and  
Teach what you have learnt

-Noordeen

# JOURNEY OF MACHINE LEARNING AND HOW TO TAME IT?



Who Is This?

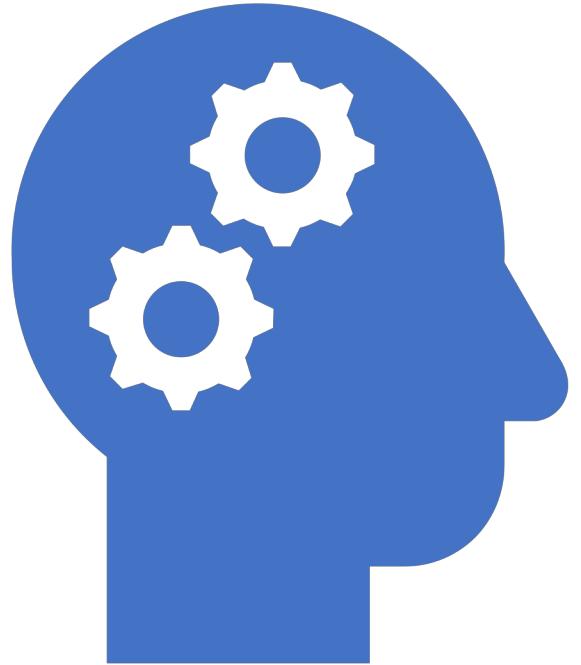


Arthur Samuel

## Father of Machine learning

1956 – Trains computer to play checkers

1962 – Computer defeated the state champion



What Machine  
learning did in Past  
and doing Today  
and in Future

# PROBLEM SET

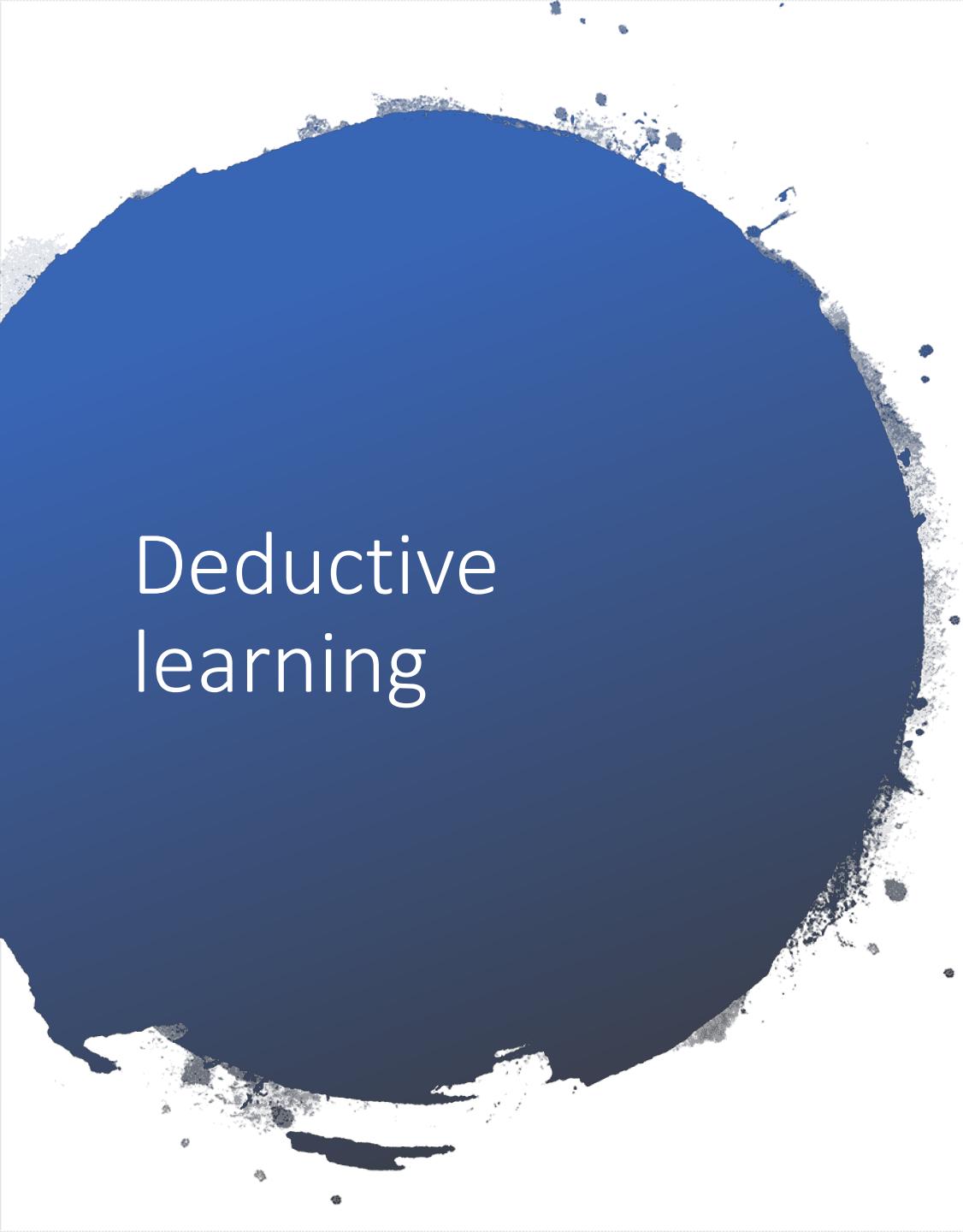
A Specific metallic component is wearing out with use in an acidic environment

How do we understand and use this component?



## Approach 1: Science

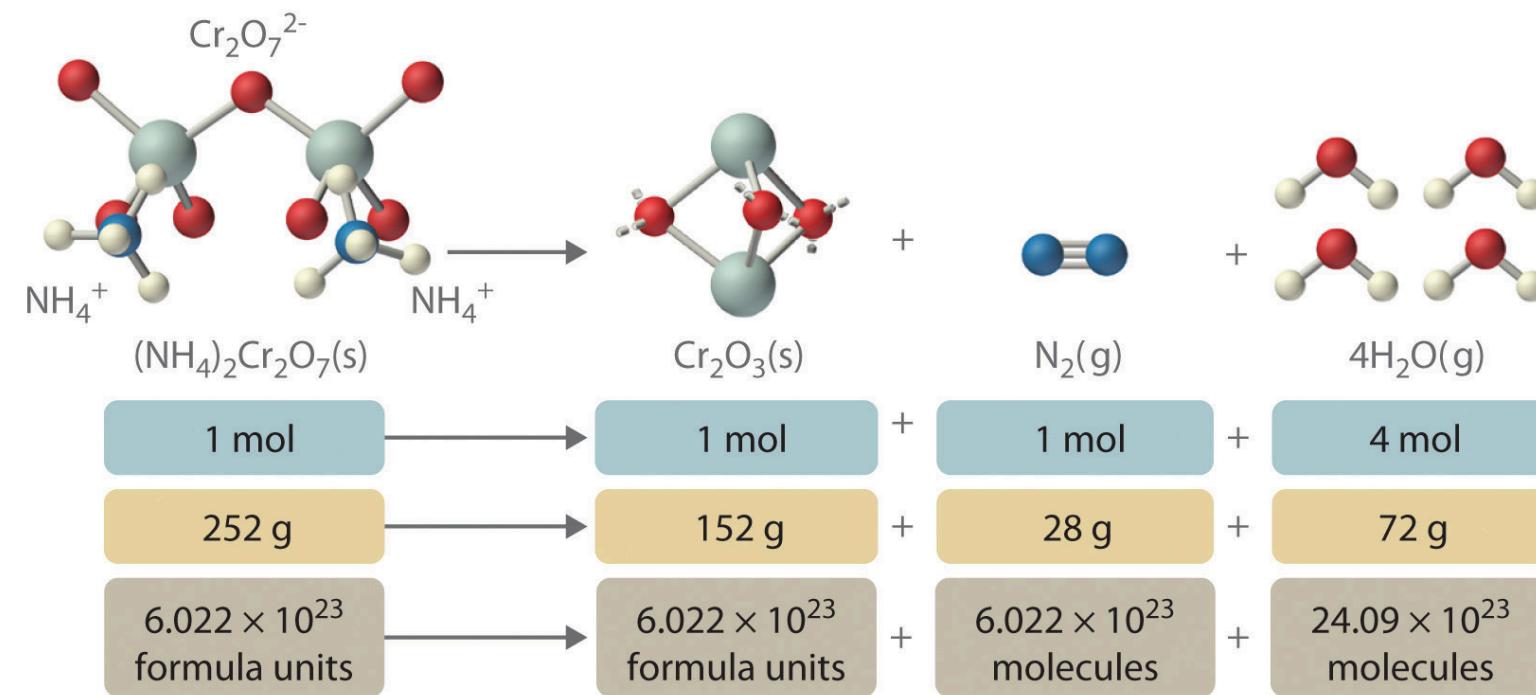
- A chemist studies what happens to the material in acid and understands that the metal is reacting with the hydrogen in the acid to form a vapor
- Comes up with a equation and science behind



Deductive  
learning

A few hypothesis that cannot  
be proved

Rest of science is developed  
by extending these using  
mathematics and  
experiments

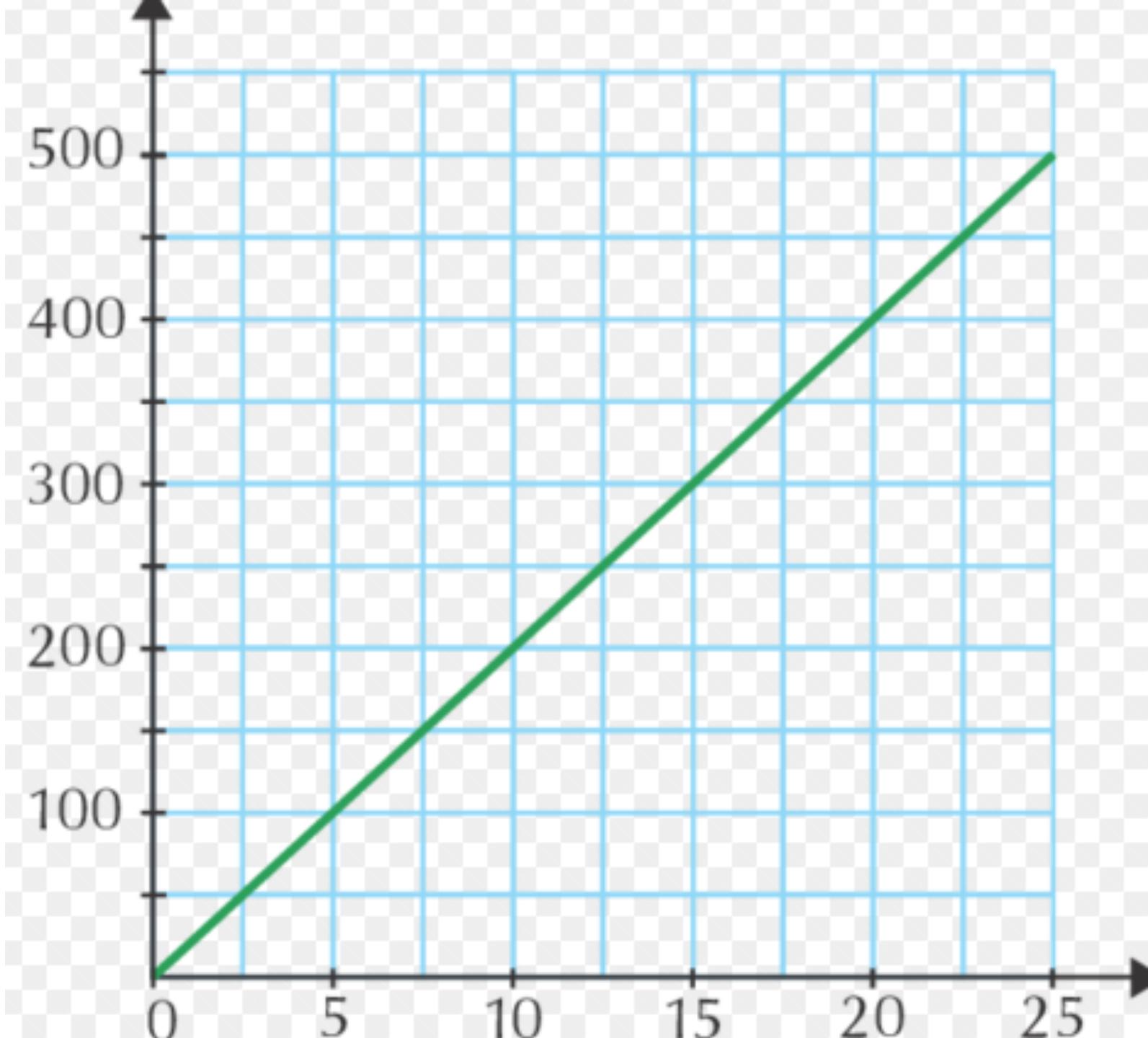


- A chemist studies what happens to the material in acid and understands that the metal is reacting with the hydrogen in the acid to form a vapor
- Comes up with a equation and science behind

## Approach 1: Science

# Approach 2: Engineering

- An engineer tests the degradation in a few concentrations and temperature, plots the degradation, validate the theory and comes up with the thumbs up rule

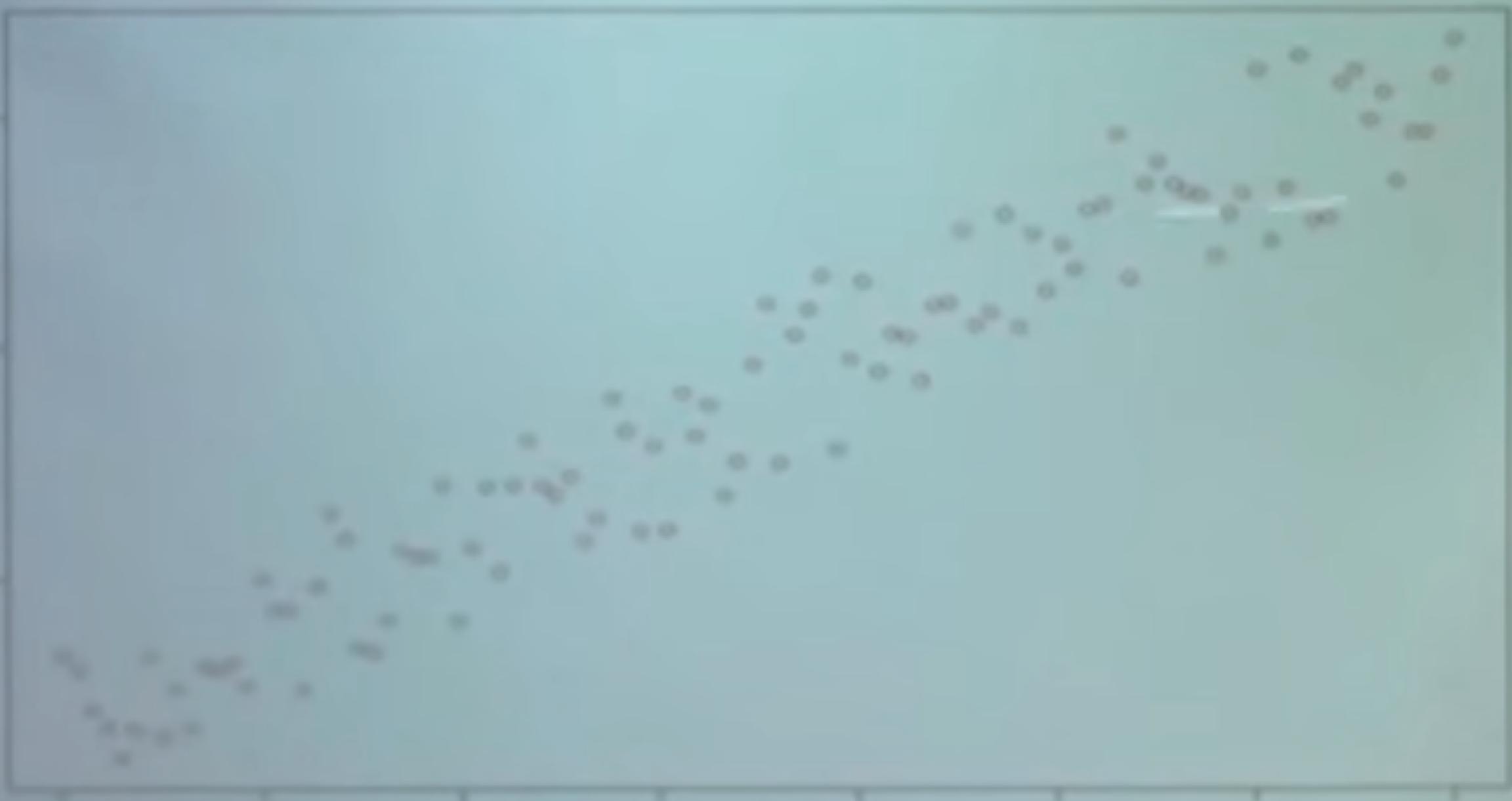


# Inductive Learning

- Measure the degradations in hundreds of conditions (temperatures and concentrations for various times)

Degradation

Concentration



# Result is same but

Do not know the reasons(causations are not known and only correlations are identified)

Walmart example(does not tell how to act)

Marketing customer(does not tell the reason)



## **FAILS WHEN RANDOMNESS PREVAILS**

---

Where it  
does not  
work

---

**NEED A LOT OF DATA TO  
COME TO THE CORRECT  
CONCLUSIONS**



**“In God we trust.  
All others must bring data.”**

*- Dr. W. Edwards Deming*



Machine learning  
wonders at past

# Google

A small blue microphone icon with a red and green gradient band across it, located in the top right corner of the search bar.

Google Search

I'm Feeling Lucky

Shop All Departments

Search All Departments

# You Might Enjoy

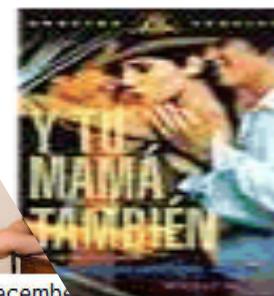
Your Amazon.com &gt; Your Amazon Facebook Page

**Facebook Profile Info**[Edit your Facebook profile](#)Birthday:  
**June 10**Current City:  
Chicago, Illinois

You don't have any information about favorite books, music, or movies on Facebook. [Edit your Facebook profile](#) and add your favorites to get personalized recommendations on this page.

**Birthday and Gift Suggestions for Your Friends on Facebook**November 1  
(in 3 weeks)[See gift suggestions](#)

November 23

[See gift suggestions](#)**Y Tu Mama Tambien**December  
[See gift suggestions](#)**Add**[See all friends on Facebook and their birthdays](#)**Popular Among Your Friends on Facebook**[The Godfather DVD Collection... DVD ~ Marlon Brando](#)**★★★★★ (630) \$41.49**

2 friends like this:

[See more](#)[Back in Black ~ AC/DC](#)**★★★★★ (677) \$9.99**

2 friends like this:

[See more](#)[Goldfinger DVD ~ Sean Connery](#)**★★★★★ (239) \$12.49**

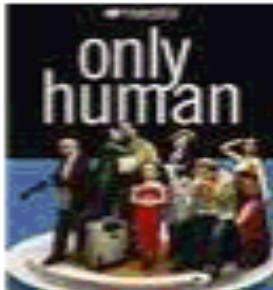
1 friend likes this:

[See more](#)**tha**[The Beatles Stereo Set ~ The Beatles](#)**★★★★★ (383) \$188.00**

2 friends like this:

[See more](#)**Eiken has been added to your Queue**

This movie is available now.

**Move To Top Of Queue**[Continue Browsing](#)**Only Human****Add****Not Interested**

Hospitality Experts!Menu

Corporate Communications/I...

Helping people to

Ignore      Accept

Ignore      Accept

▼ See more ▼



## People You May Know

|  |   |  |                                     |   |
|--|---|--|-------------------------------------|---|
|  |   |  |                                     |   |
| M. Reynolds<br>Licensed Clinical Psychologist at Columbia... | Christine Creek<br>Author + Speaker           | Invite to join LinkedIn<br>a4booth@acs.rye...  | Senior Manager, Public Relations at | Free Gartner® Research<br>Key Digital Marketing Trends For. 2016-17.<br>Download Our Free White Paper |
| <a href="#">Connect</a>                                      | <a href="#">Connect</a>                       | <a href="#">Add to network</a>                 | <a href="#">Connect</a>             |   |
|  |   |  |                                     |   |
| Pluck PR   | Invite to join LinkedIn<br>elishamusic@hot... | D. Johnson<br>Partner / Chief Creative Officer | Academic                            | Replace GSA With Fusion<br>Unmatched Scalability, Reliability and Search Expertise. Free Download!    |
| <a href="#">Connect</a>                                      | <a href="#">Add to network</a>                | <a href="#">Connect</a>                        | <a href="#">Connect</a>             |   |
|  |   |  |                                     |   |

## People You May Know

**Denise Ruehrschnick Jacobson**

Add as Friend

**John Mullis**

Add as Friend

**Travis Johnson**

Add as Friend

**Ads**

Gartner

**Free Gartner® Research**  
Key Digital Marketing Trends For. 2016-17.  
Download Our Free White Paper

Replace GSA With Fusion

Unmatched Scalability, Reliability and Search Expertise. Free Download!

## Invite Your Friends

Invite friends to join Facebook.

PIENSE

ΣΙΝΑΩΜΙΣ

THINK

तोचिए

ΣΚΕΨΟΥ

DENKE

PENSER



**\$24,000**

Who is Stoker?  
(FOR ONE WELCOME OUR  
NEW COMPUTER OVERLORDS)

\$1,000

**\$77,147**

Who is Bram  
Stoker?

\$17,973

**\$21,600**

WHO IS  
BRAM STOKER?

\$5600





Computers can  
Learn

# Automatic Drug Discover

## Geoffrey Hinton

From Wikipedia, the free encyclopedia

**Geoffrey Everest Hinton FRS**<sup>[12]</sup> (born 6 December 1947) is a British-born Canadian<sup>[13]</sup> cognitive psychologist and computer scientist, most noted for his work on artificial neural networks. As of 2015 he divides his time working for Google and University of Toronto.<sup>[14]</sup> He was one of the first researchers who demonstrated the use of generalized backpropagation algorithm for training multi-layer neural nets and is an important figure in the deep learning community.<sup>[15][16][17]</sup>

### Contents [hide]

- 1 Education
- 2 Career
- 3 Research
- 4 Honours and awards
- 5 Personal life
- 6 References

## Education [ edit ]

Hinton was educated at King's College, Cambridge graduating in 1970, with a Bachelor of Arts in experimental psychology.<sup>[1]</sup> He continued his study at the University of Edinburgh where he was awarded a PhD in artificial intelligence in 1977 for research supervised by Christopher Longuet-Higgins.<sup>[3][18]</sup>

## Career [ edit ]

After his PhD he worked at the University of Sussex, the University of California, San Diego, Carnegie Mellon University.<sup>[1]</sup> He was the founding director of the Gatsby Charitable Foundation Computational Neuroscience Unit at University College London,<sup>[1]</sup> and is currently<sup>[19]</sup> a professor in the computer science department at the University of Toronto. He holds a Canada Research Chair in Machine Learning. He is the director of the program on "Neural Computation and Adaptive Perception" which is funded by the Canadian Institute for Advanced Research. Hinton taught a free online course on Neural Networks on the education platform Coursera in 2012.<sup>[20]</sup> Hinton joined Google in March 2013 when his company, DNNresearch Inc, was acquired. He is planning to "divide his time between his university research and his work at Google".<sup>[21]</sup>

Geoffrey Hinton



|              |  |
|--------------|--|
| Born         | Geoffrey Everest Hinton<br>6 December 1947 (age 69) <sup>[1]</sup><br>Wimbledon, London                                  |
| Residence    | Canada   |
| Fields       | Machine learning<br>Neural networks<br>Artificial intelligence<br>Cognitive science<br>Object recognition <sup>[2]</sup> |
| Institutions | University of Toronto<br>Google  |



Google Deep Mind

 AlphaGo

Lee Sedol



Computers Can Listen  
And Understand



We didn't have to reorder the text in Chinese because word order in Chinese is not the same as the word order in English.  
To produce something that began to resemble something that a Chinese speaker minded.

To produce something that  
began to  
resemble  
something that  
a  
Chinese  
speaker  
minded

一种产品  
开始像说中文的人  
的心志的东西。

汉语词序是不一样的英语的语序，我们没有以中文文本进行重新排序。  
一种产品开始像说中文的人心志的东西。

## Speech Translation And Generation



Computers Can See

# Image Recognition



---

Artificial Intelligence created its own Movie

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<https://arstechnica.com/gaming/2016/06/an-ai-wrote-this-movie-and-its-strangely-moving/>

---

Artificial Intelligence created its own Music

---

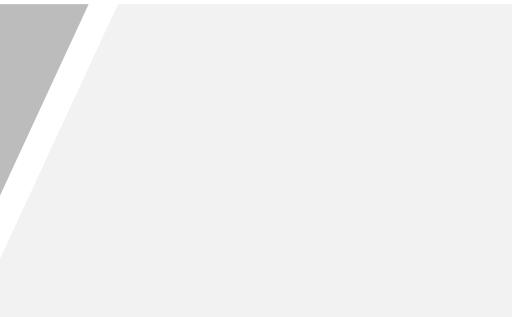
<https://www.youtube.com/watch?v=3OEmzl52stk>

---

Artificial Intelligence created its own Art

---

<https://www.youtube.com/watch?v=Sbd4NX95Ysc>



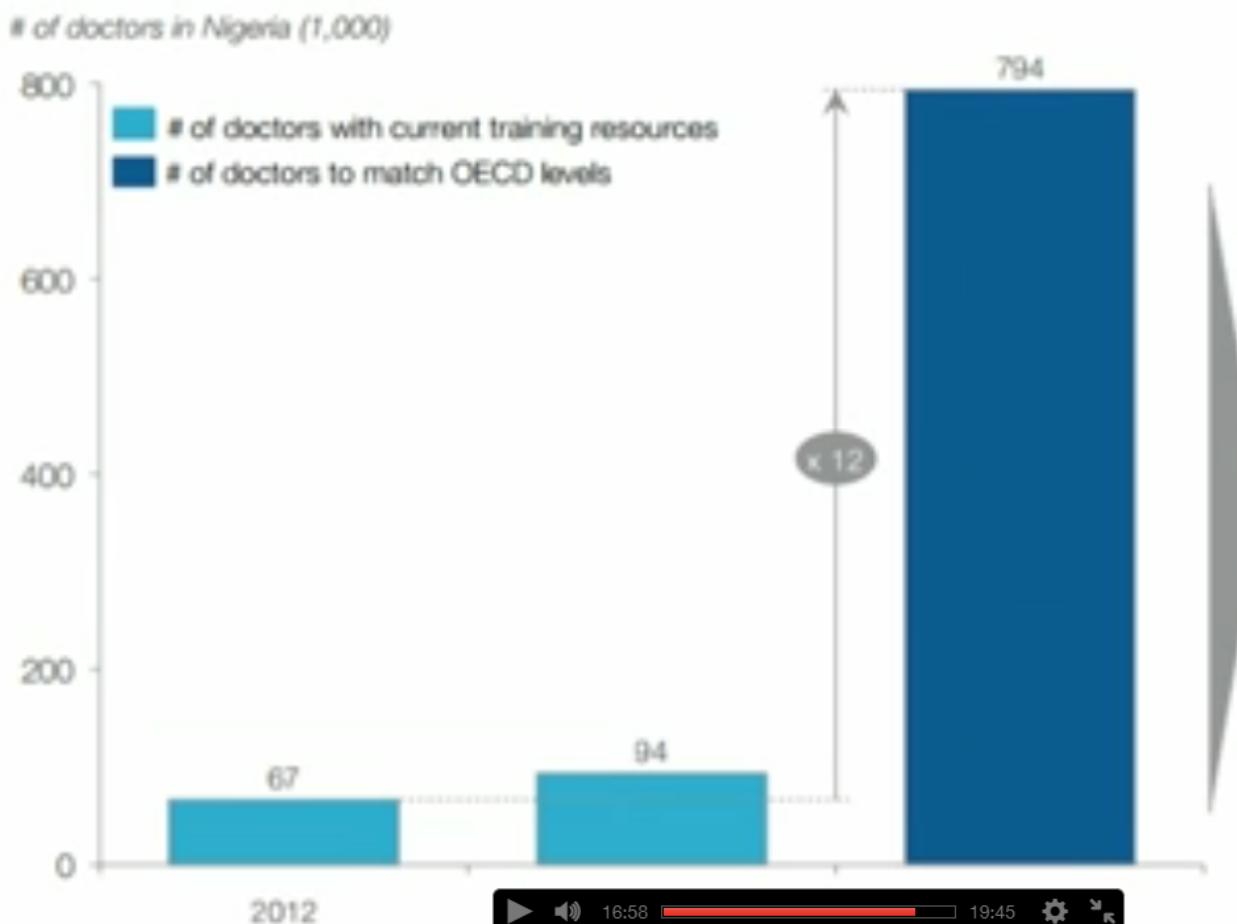
Some Interesting things around AI



For Future

**Exhibit 1: Imitating Traditional Development Paths Is Impossible for Emerging Economies**  
Nigeria would need over 700,000 additional doctors to reach OECD levels by 2030

Sources: World Bank, WHO, Africa Health Workforce Observatory, BMI, IFC, BCG



COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

**Cost:**  
US\$ 51 billion, equaling 20%  
of GDP (2012) or 10 times  
public health expenditure  
(2012)

**Duration:**  
300 years with existing  
training infrastructure

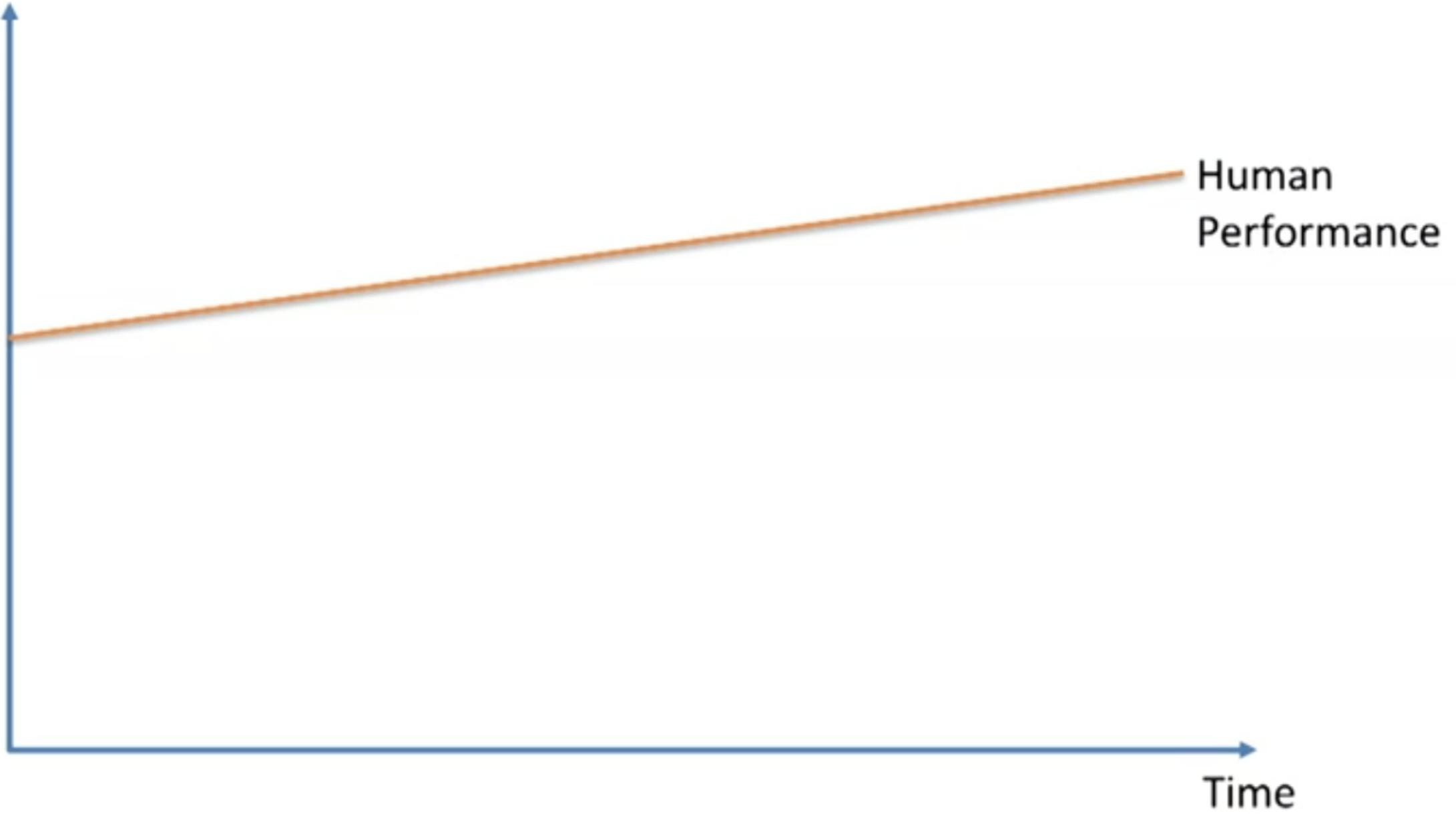
Reading &  
Writing

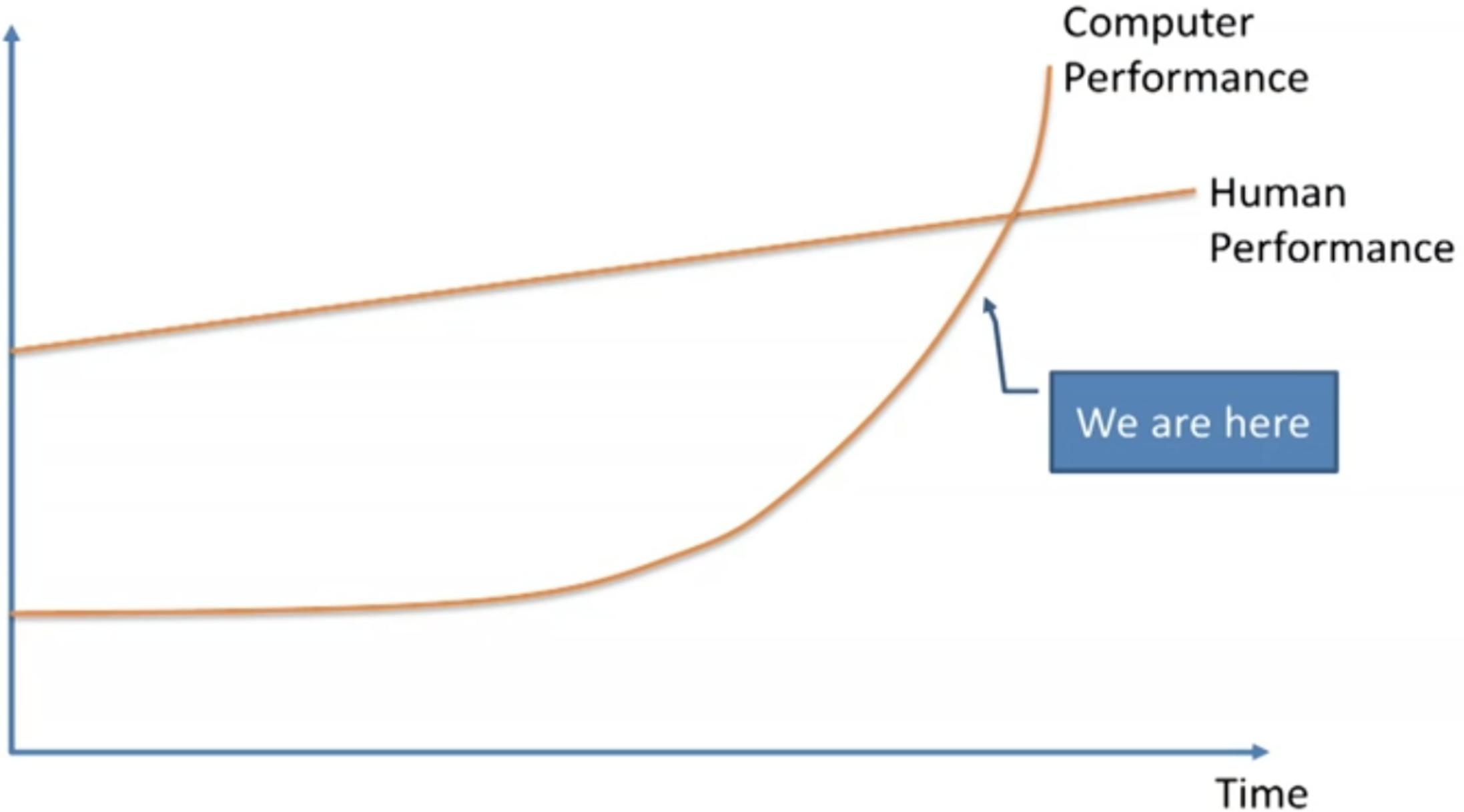
Speaking &  
Listening

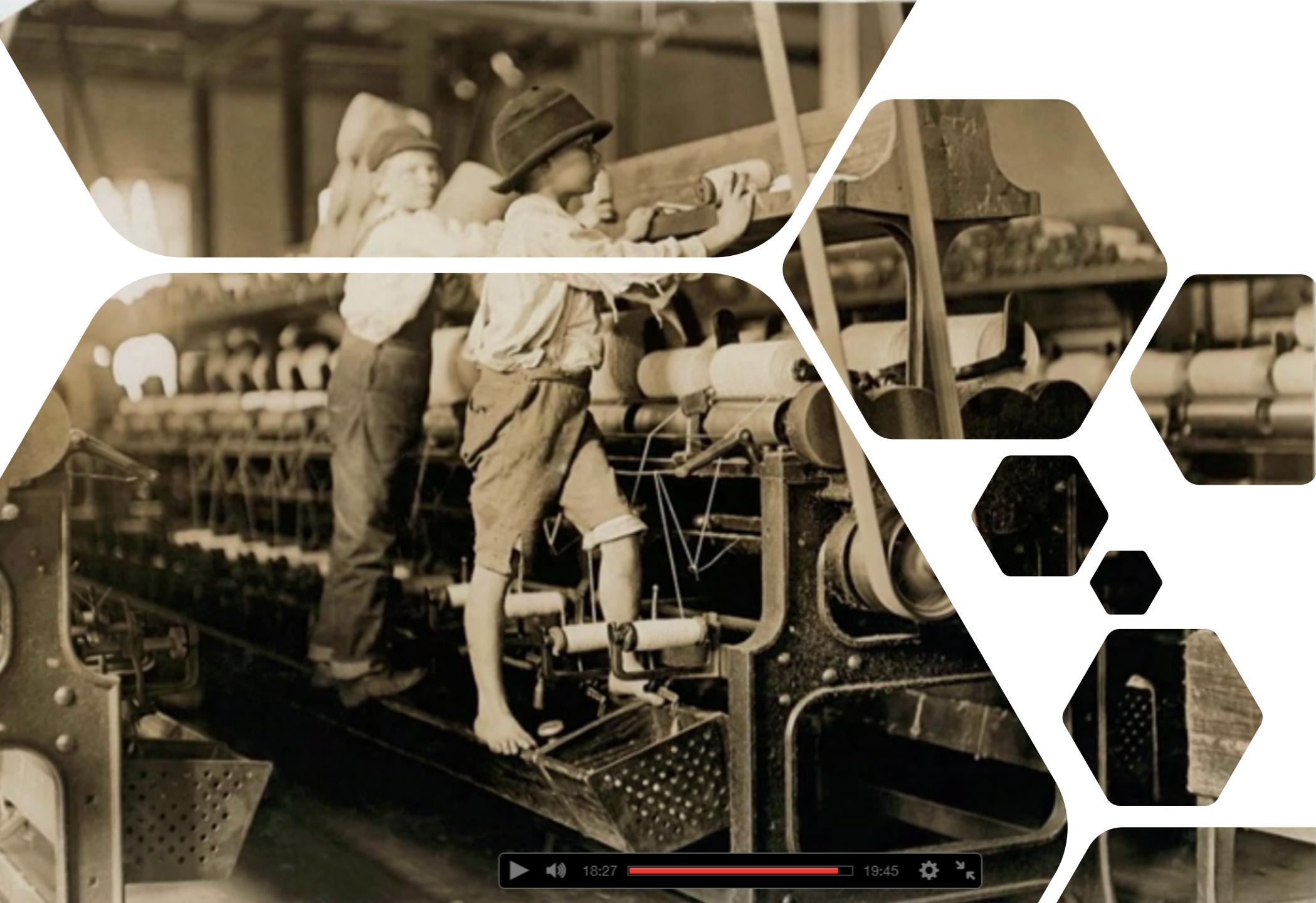
Looking at  
things

Integrating  
knowledge

- Driving cars
- Preparing food
- Diagnosing disease
- Finding legal precedents
- ...



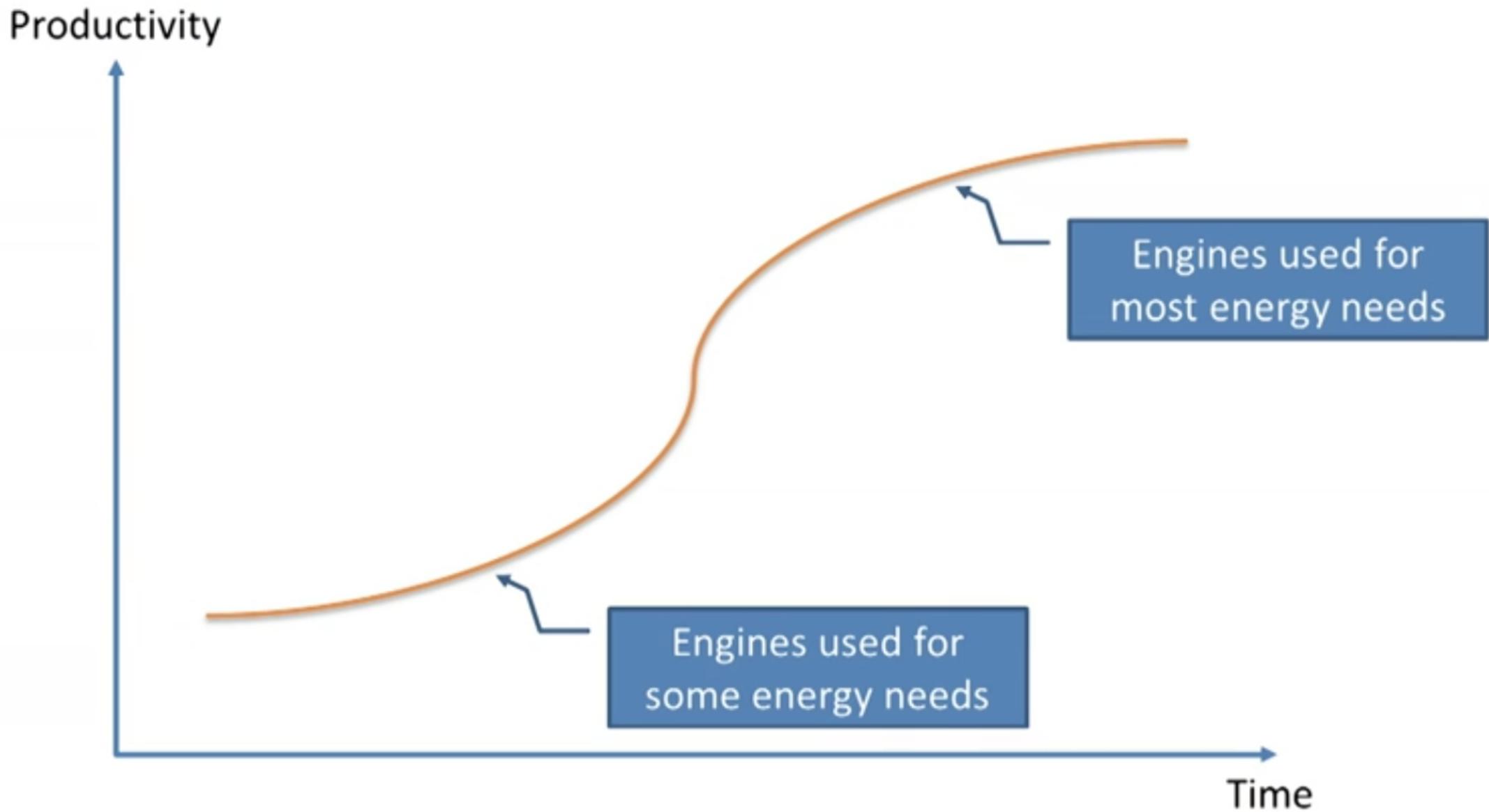




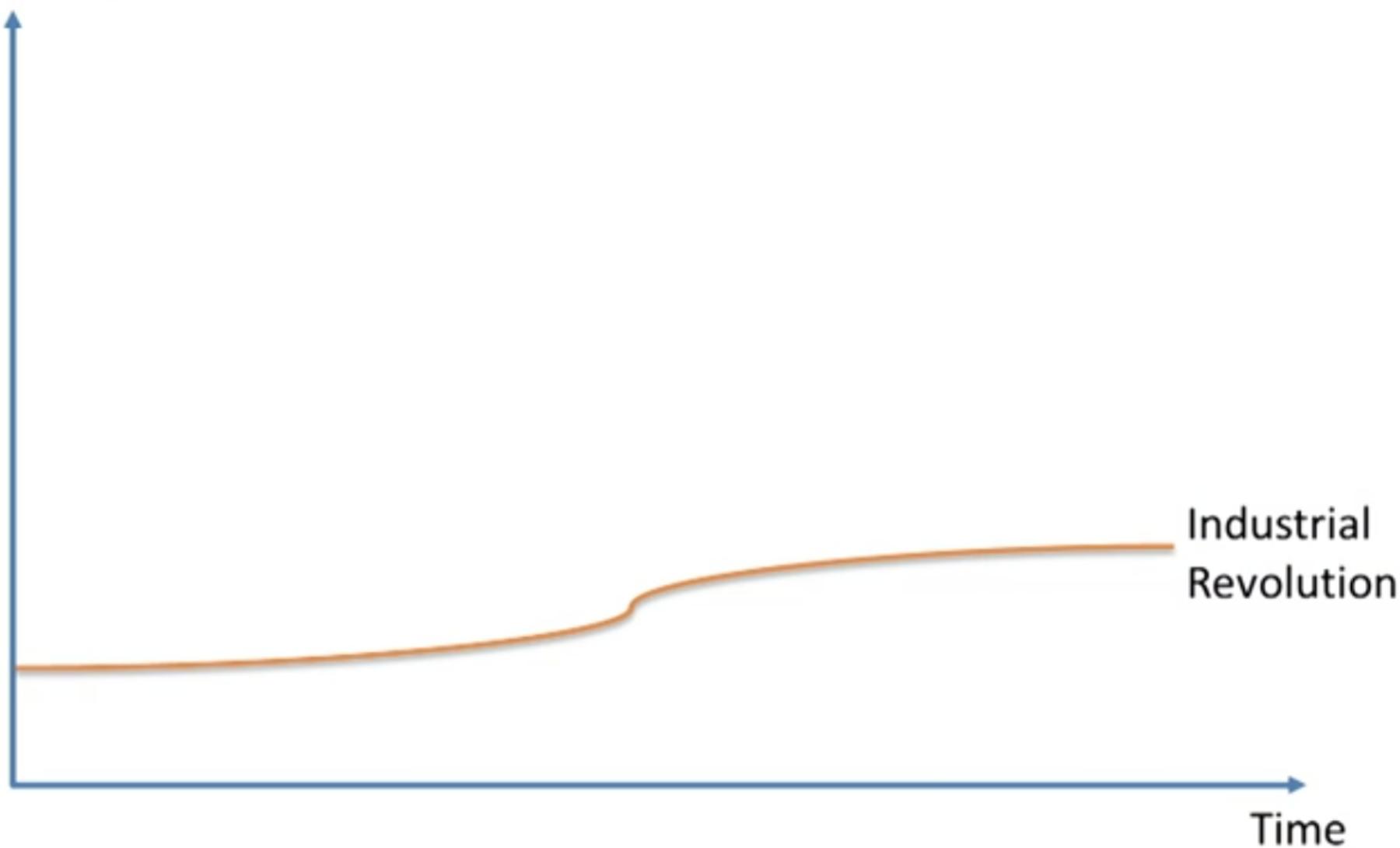
49

▶ 🔍 18:27 19:45 ⚙️

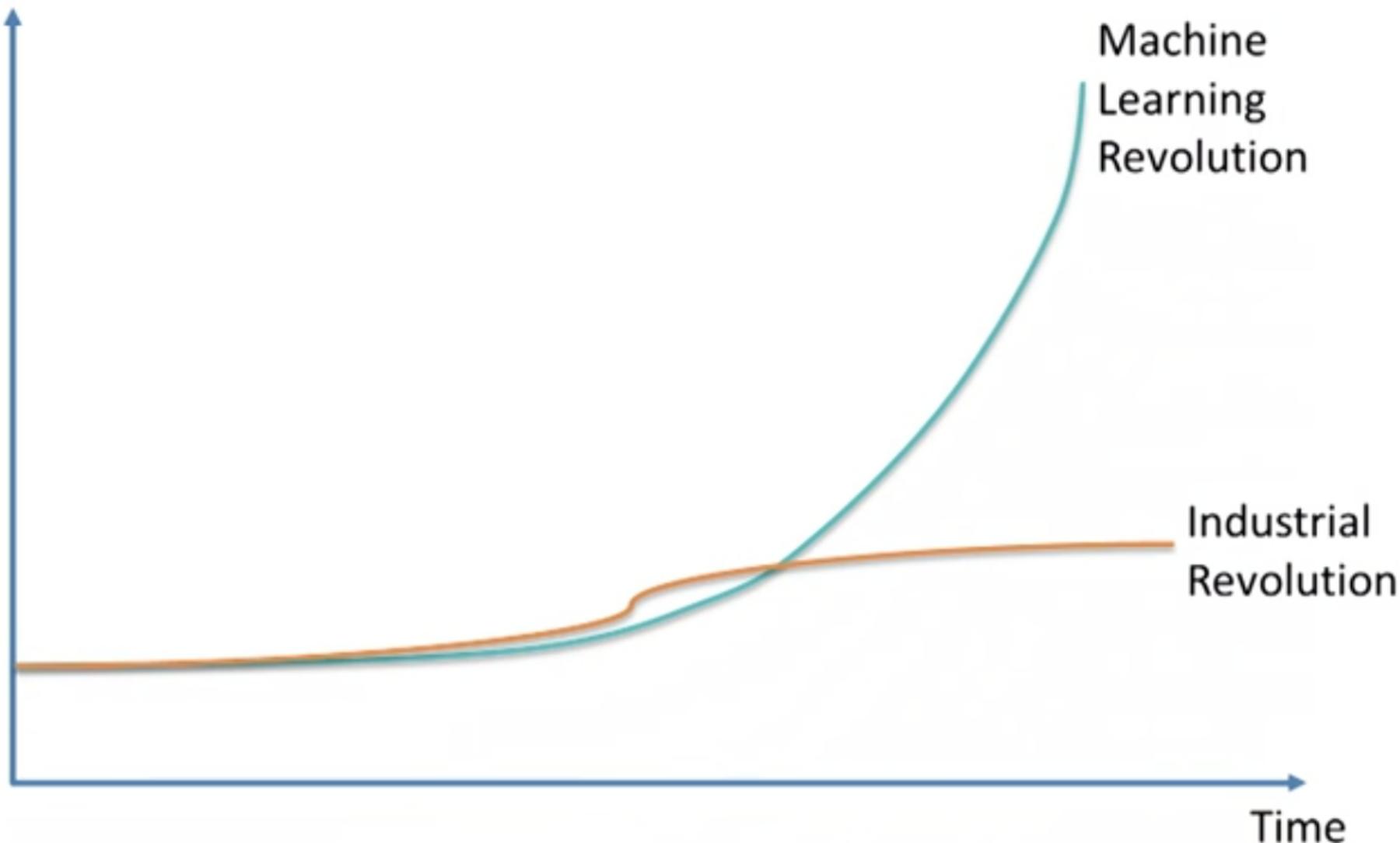
obj  
and  
division



Productivity

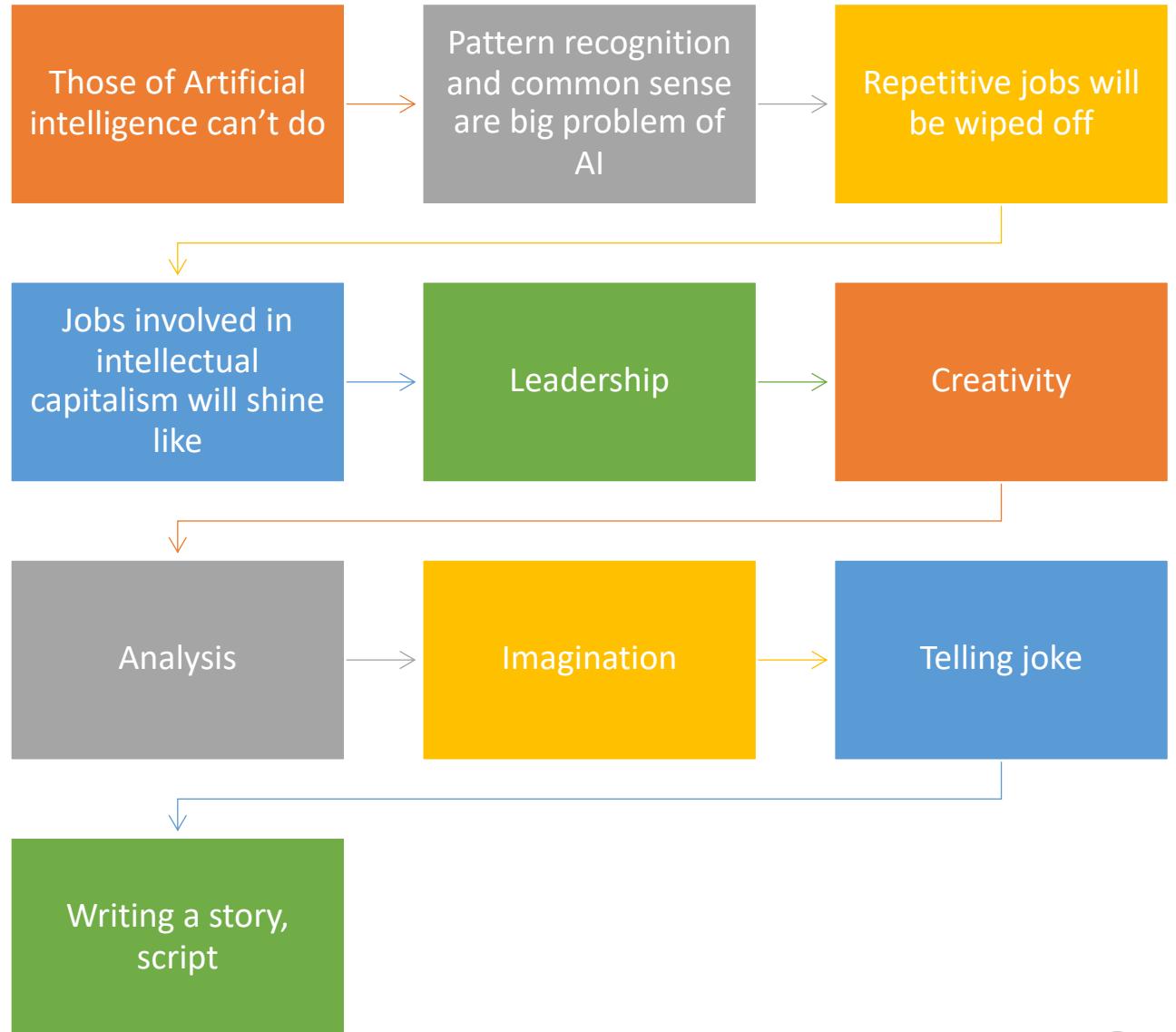


Productivity



# Future Jobs

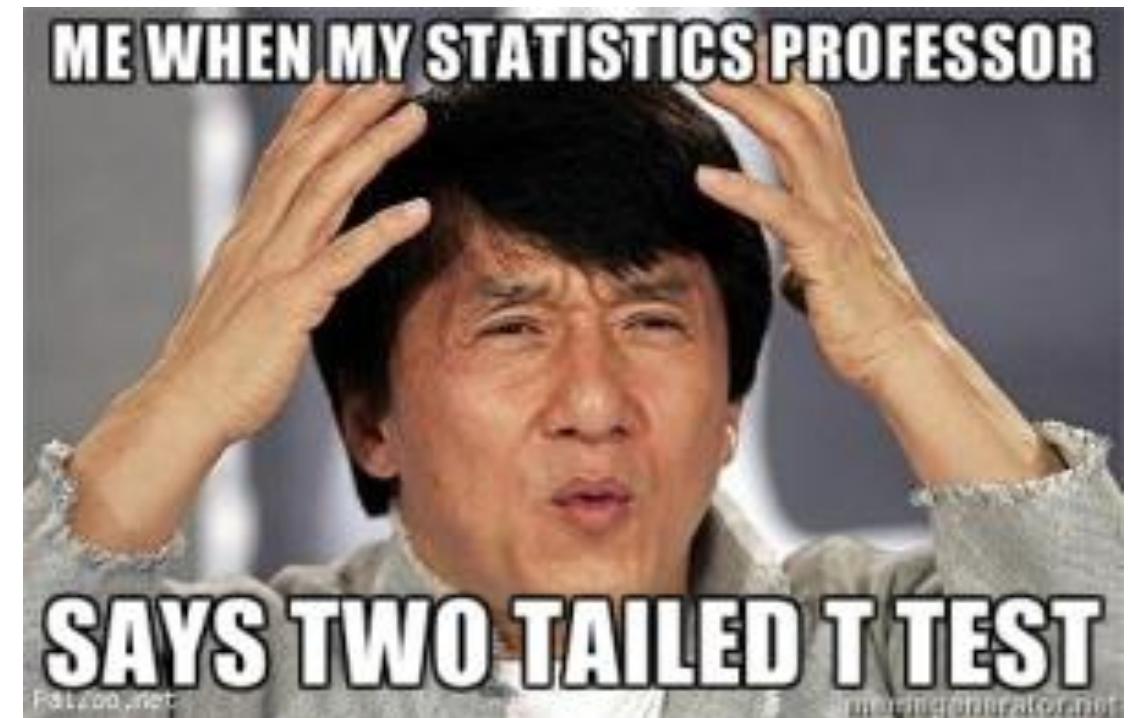
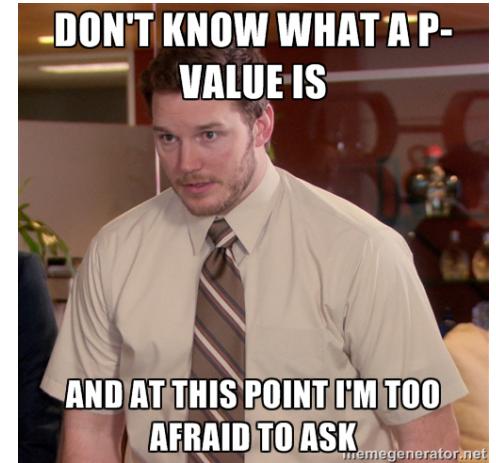
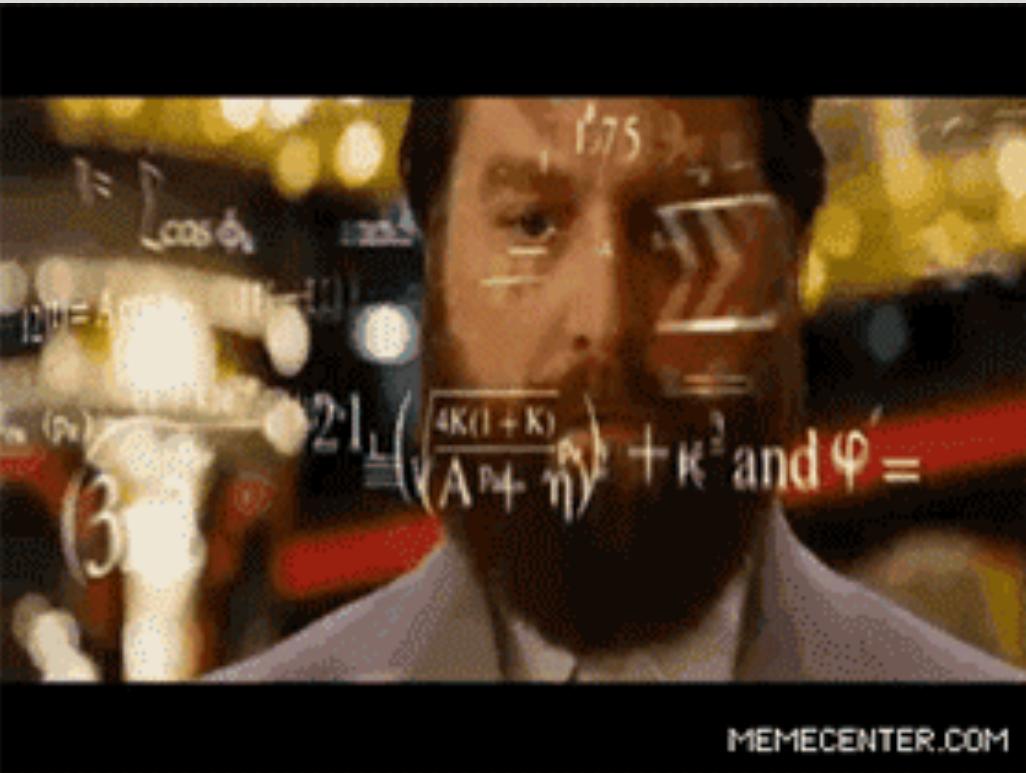
- Michio Kaku
- Physicst



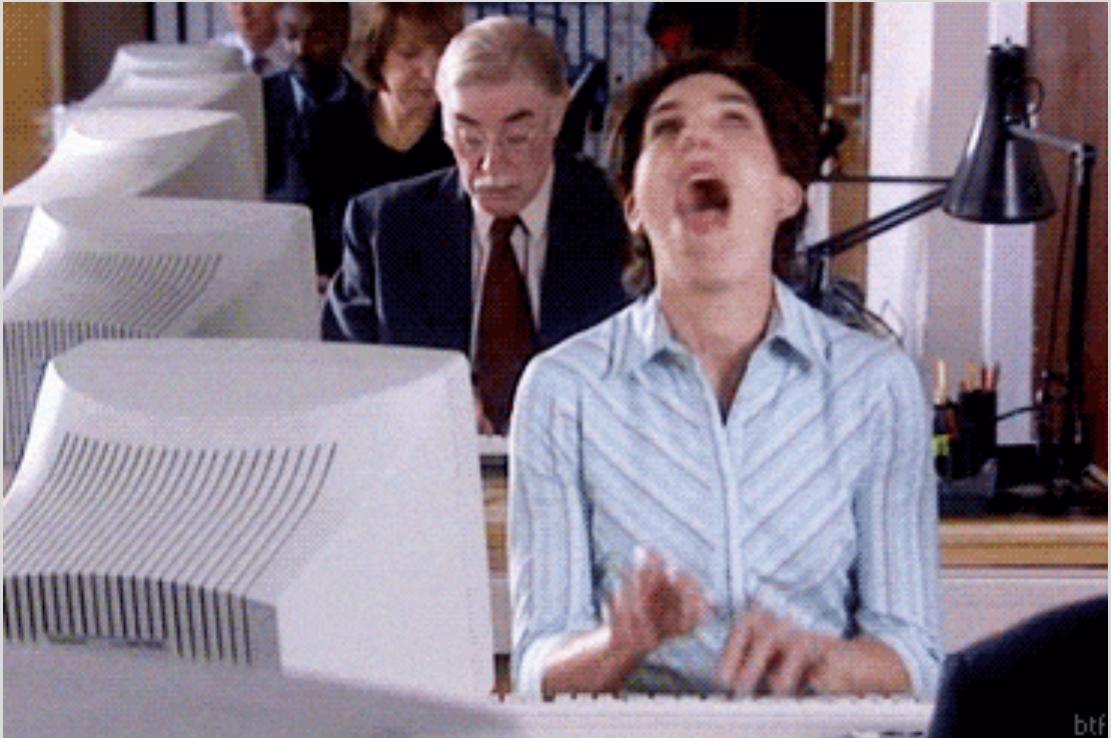


How to Tame it?

# Revise Statistics and Probability



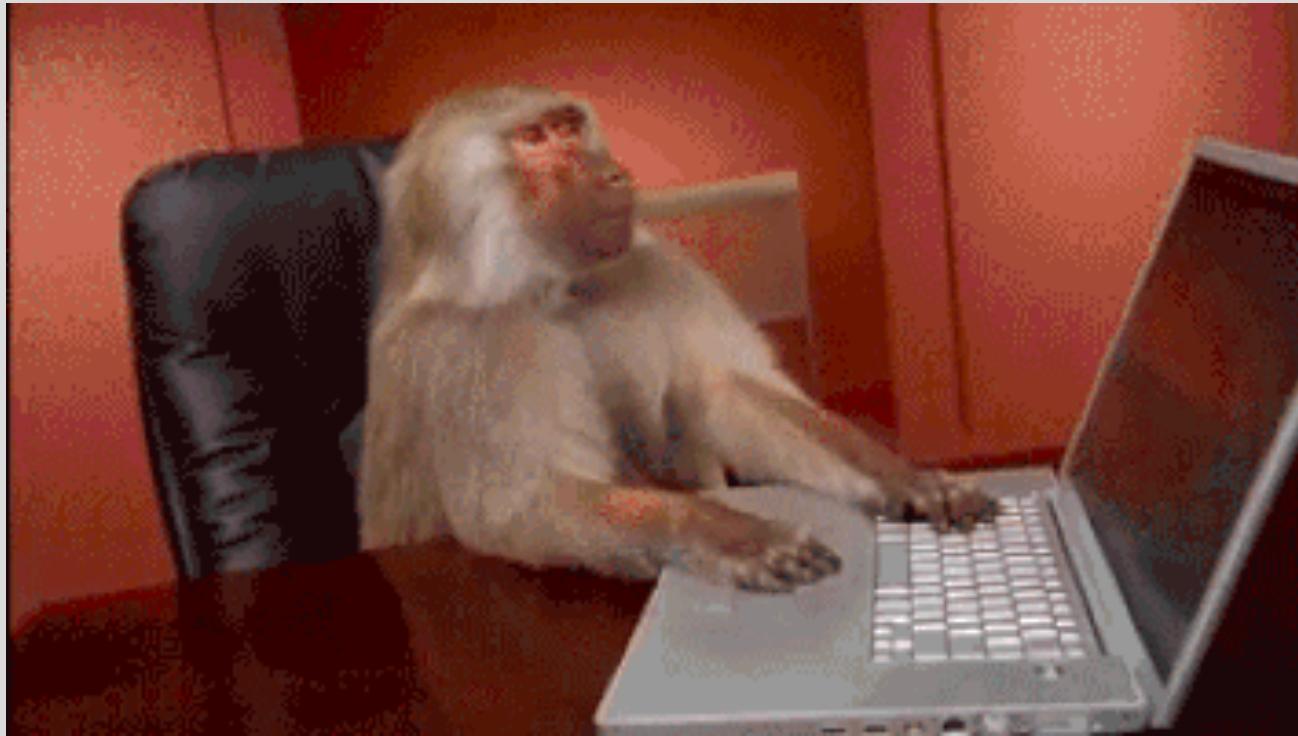
Learn algorithm how it works  
rather concentrating on output



# HOW IT WORKS

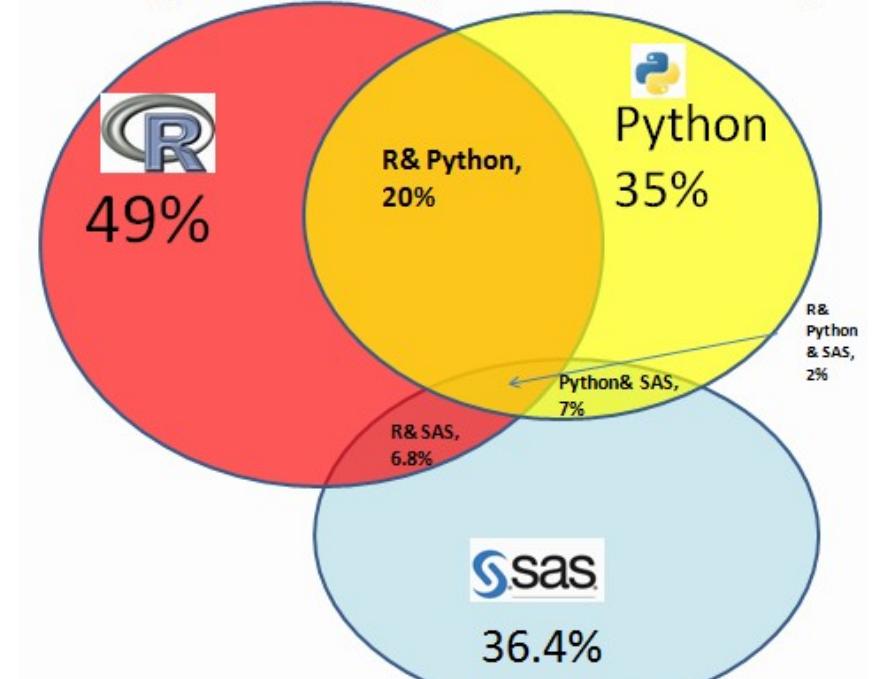


# Learn and practice a programming language



```
208 limit_val = a;
209 $("#limit_val").a(a);
210 update_slider();
211 function(limit_val);
212 $("#word-list-out").a(" ");
213 var b = k();
214 h();
215 var c = l(), a = " ", d = personl(
216 arseInt($("#slider_shuffle_number").val());
function("LIMIT_total:" + d);
function("word_out:" + f);
```

KDnuggets 2014 Poll: Languages used for Analytics/Data Mining, 2



Big data and Data science are happily married



Practice all algorithm  
with each use case



Make use of  
Kaggle and  
Analytics vidhya



hackerearth

kaggle™

MACHINE HACK

↗ Analytics Vidhya

TECHGIG

Contribute your work to  
Opensource



# Write a blog



# **why jog when you can blog**

# Make your resume attractive

**DATA ANALYTICS PROFESSIONAL**  
5 years of prior experience has well acquired skills of mining hidden gems located within the large sets of unstructured, structured and unstructured data. The profound expertise will be used for improving organizational productivity and my own progress.

**SAMPLE WORK IN ANALYTICS**  
Developed a forecast on industry shipment in the US home appliances for next two-quarters based on the past data. The forecast was done using univariate time series models like seasonal regression, SMA, WMA, and EMA. Later the model was the best fit with advanced time series model like ARIMA.

Image recognition using deep learning model. I even participated similar problems in online competitions like Analytics Vidhya and Kaggle and placed in top 10 leaderboard score.

**CONTACT**

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E-MAIL nursnaaz@gmail.com  
LINKEDIN www.linkedin.com/in/nursnaaz/  
GITHUB www.github.com/nursnaaz/  
WEBSITE www.technaaz.com

**ACADEMIC**

Motriculation 88% 2005  
High. Secondary 88% 2007  
B.Tech 81% 2011

**CORE COMPETENCIES**

- CLUSTERING & CLASSIFICATION
- REGRESSION & OPTIMIZATION
- TIME SERIES FORECASTING
- DEEP LEARNING
- STATISTICS ANALYSIS
- TEXT MINING & NLP
- BIG DATA TOOLS
- STORY TELLING

**CERTIFICATION**

2017 Certified Program in Big Data Analytics & Optimization at INSOFSeva.org  
2016 Certified Big Data Hadoop developer by Collabera TACT  
2013 Oracle Certified Professional, Java SE 6 Programmer  
2012 Oracle Database SQL Certified Expert

**PROFILE SUMMARY**

- A Data Scientist with 6 years of experiences in advance analytics, Machine Learning, Predictive Modelling, Data Mining, Text Analytics and Statistical Data analysis.

**MOHAMED NOORDEEN A**  
**Data Scientist**  
**Tiger Analytics**

nursnaaz@gmail.com

<https://www.linkedin.com/in/nursnaaz/>

<https://github.com/nursnaaz/>

[www.technaaz.com](http://www.technaaz.com)

(+91) 9789-830021

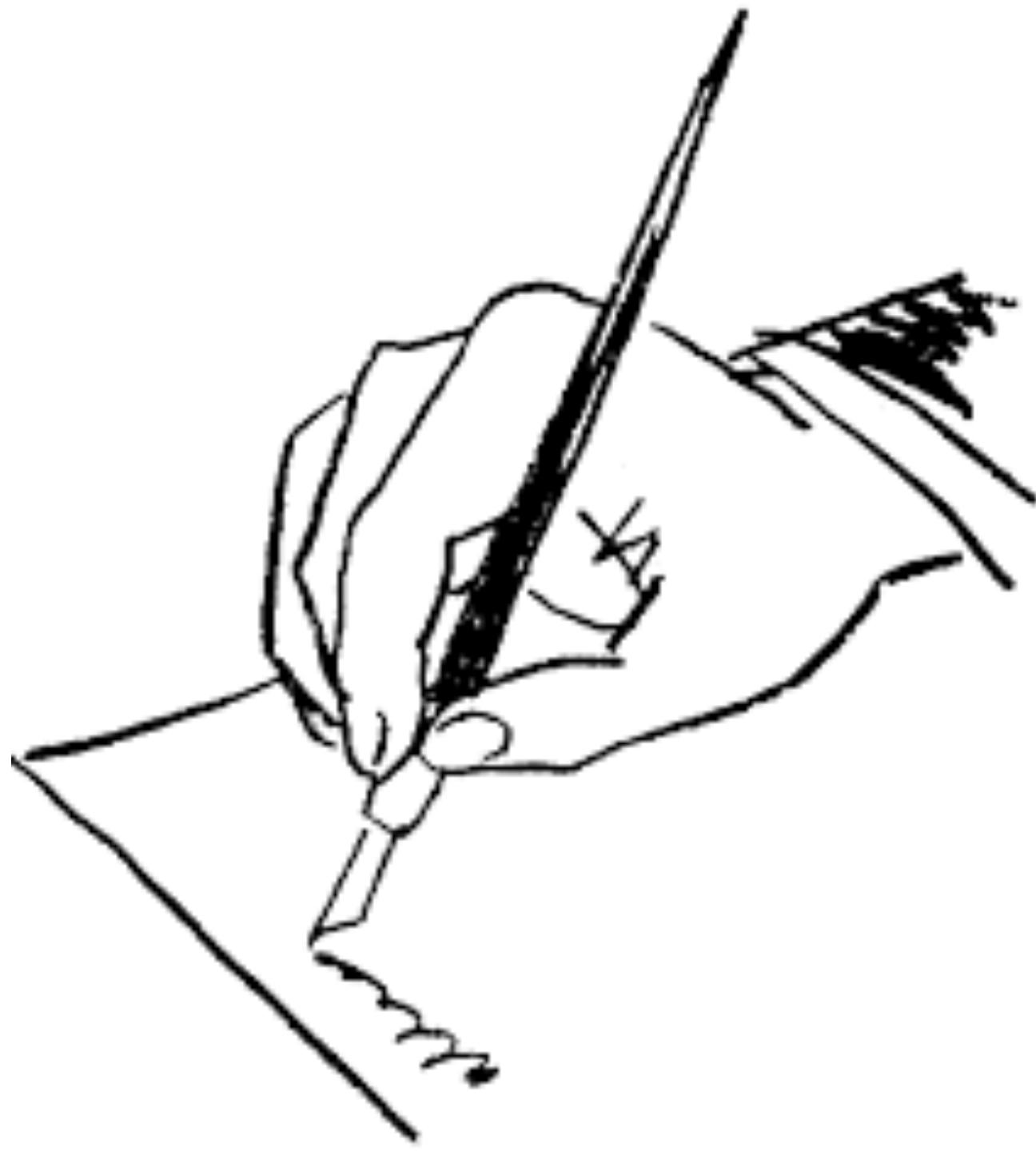
## SUMMARY

Scientist with 6 years of experiences in advance analytics, Machine Learning, Data Mining, Text Analytics and Statistical Data analysis.

# Story of a Pencil Maker



1.  
Allow yourself to  
held in  
someone's hand



2.

Experience  
painful  
sharpening



3.  
Correct  
your  
mistakes



4.

What is inside is  
most important



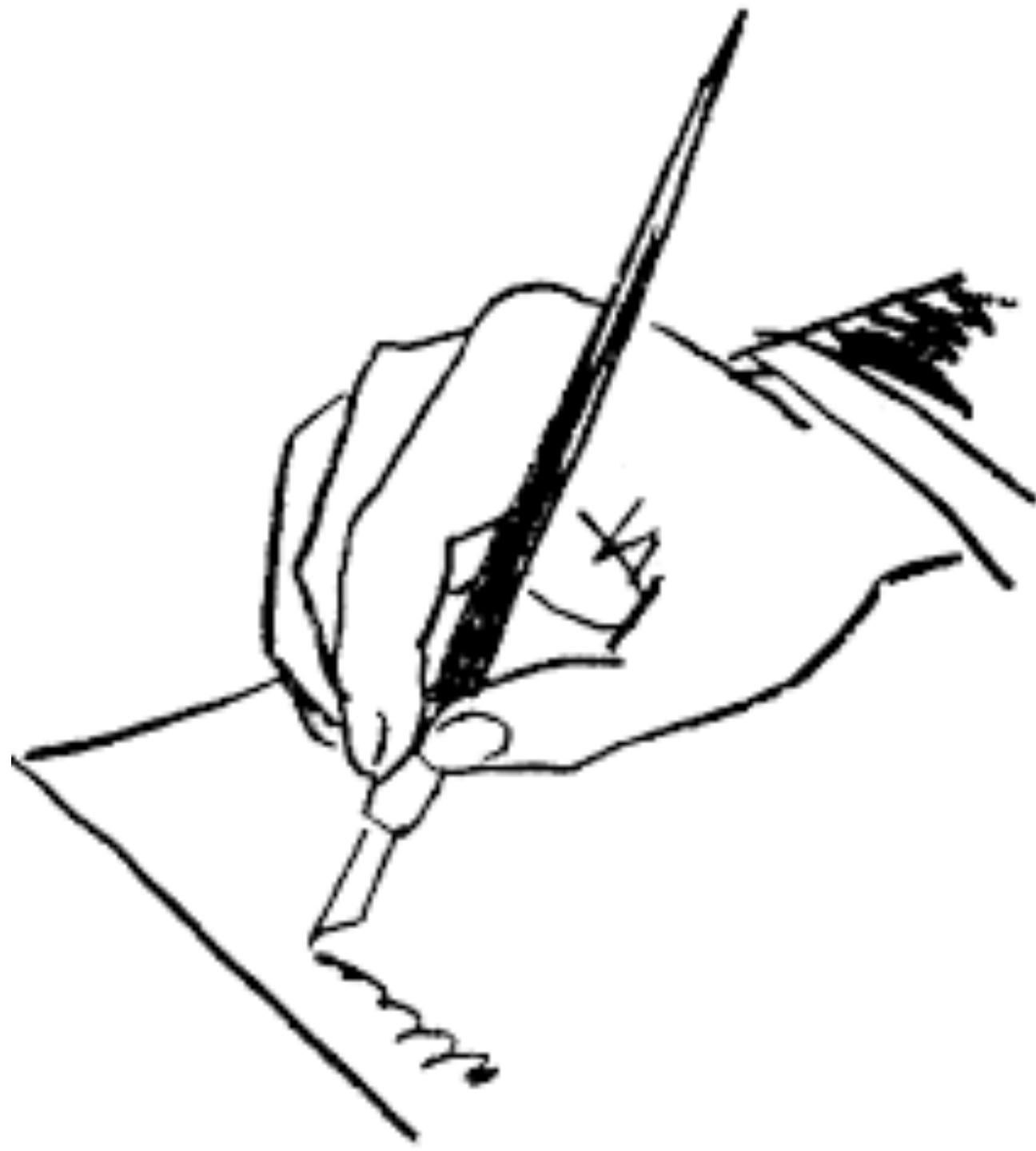
5.  
What ever the  
condition



1.

Allow yourself to  
held in someone's  
hand

Do you submit  
yourself to a mentor



2.

Experience painful  
sharpening

Do you Hard work  
in unwilling  
circumstances?



3.

Correct your  
mistakes

Do you  
retrospect your  
mistake and  
correct?



4.

What is inside is  
most important

How skilled you  
are?



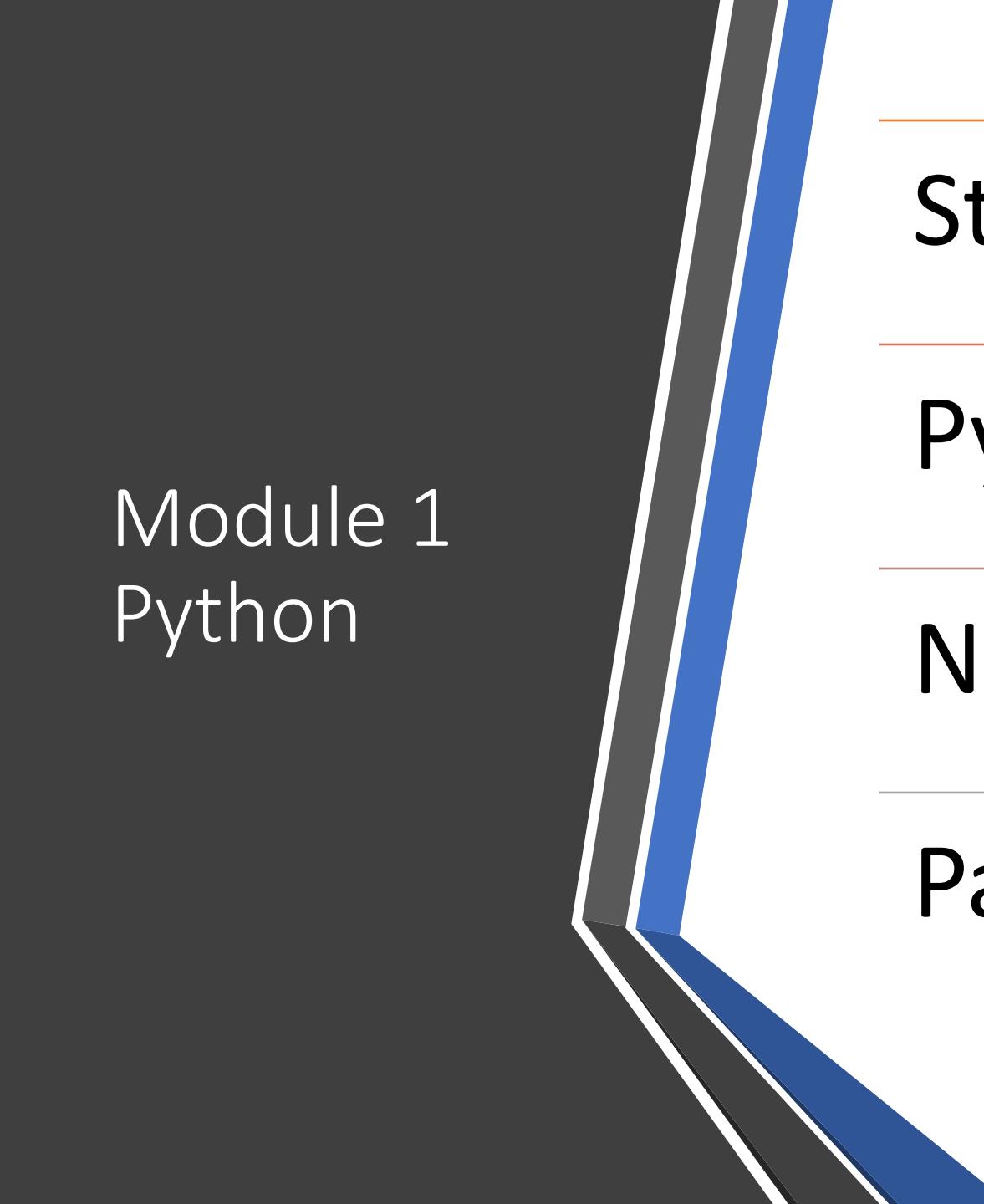
5.

What ever the  
condition

Who will cry  
when you die?



Resolution  
Plan  
Discipline  
Time  
Goals



Module 1  
Python

---

# Statistics and Probablity

---

## Python Basics

---

## NumPy

---

## Pandas

# Module 2

## Supervised Learning

---

Linear Regression

---

Logistic Regression

---

KNN

---

Naive Bayes

---

Decision Tree

---

Random Forest

---

Boosting

---

Stacking

Module 4  
Un-Supervised  
Learning

---

## K-means

---

## K-means++

---

## Hierarchical Cluster

# Module 5

## Deep Learning

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### Neural Networks

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### Convolution NN

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### Recurrent NN

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### LSTM

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### Deep Learning Applications

# Data Preprocessing

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Bag of words

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TF-IDF

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Word-Embeddings

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NLP Applications

# Module 7

## Model Deployment

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### Saving and Loading Model

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### Rest API using Flask

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### Productionizing using Google cloud platform

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### Applications

Module 8  
BigData

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HDFS

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Hive

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Sqoop

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PySpark

# Charts

Module 9  
Tableau

# Applications

## References

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THANK YOU