# Ai in finance

By : Vishwas Narayan

# DISCLAIMER

# Who am I?

1. The best of me is yet to be explored by me itself
2. I am a Technician(I dont about the Programing Language)
3. Started a boring engineer and ended up as a Full stack Guy(I still don't know which stack i belong)
4. I just love problem statement and I am just hacking to solve all the problem statement that I find and I will make the best out of all the things that I can reach out to.
5. And a Community Guy.

# What we Dwell with is a

Problem statement

# What is our biggest disease

Overthinking,Never thinking about bad guys and anything bad that can happen and we overestimate the

# Agenda for the Talk

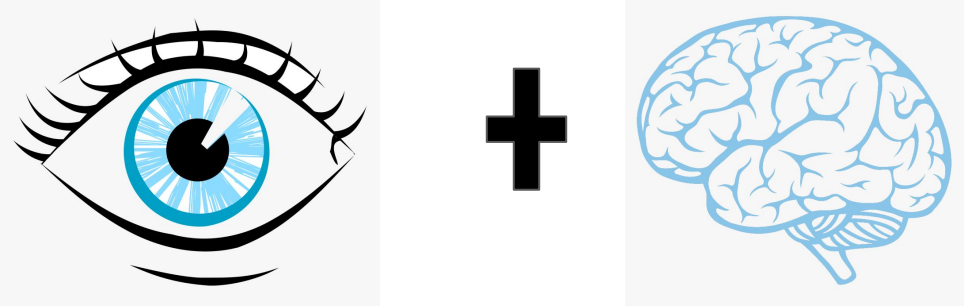
1. What is Artificial Intelligence?
2. What is Machine learning?
3. Types of Machine Learning
4. What is data and Information?
5. Data Generation Over Globe
6. Banking and Finance Industry
7. Scope of AI ML in Banking and other financial Sectors
8. Project on the Banking and Finance Industry using the AI and ML

# What makes you intelligent?

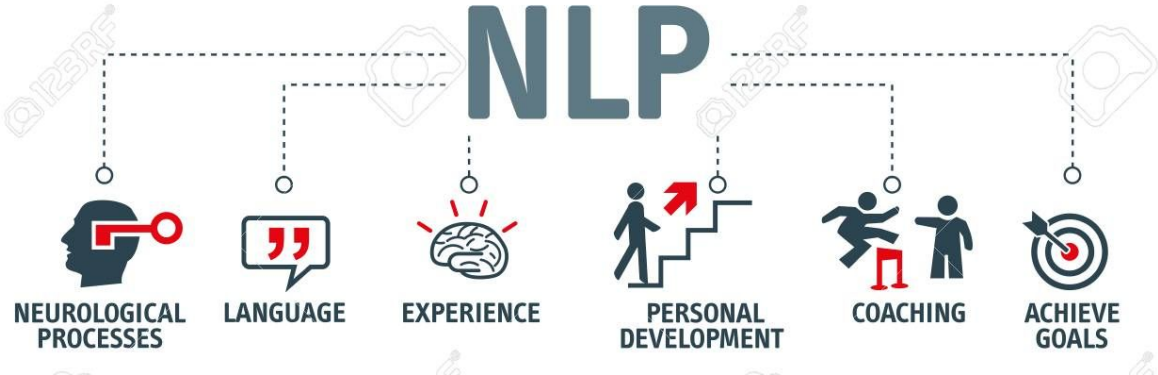
You learn to

1. Recognize
2. Make mistakes and learn from it
3. Make sure that you learn from the learnt aspects(you can relate to some learning)
4. You sometimes go by your Gut Feelings
5. Create Perspectives and we will learn to work with it.

# Ai today is just trying to mimic the senses

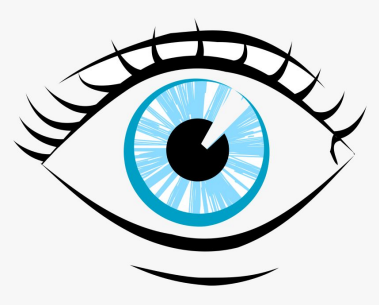


**Computer Vision**

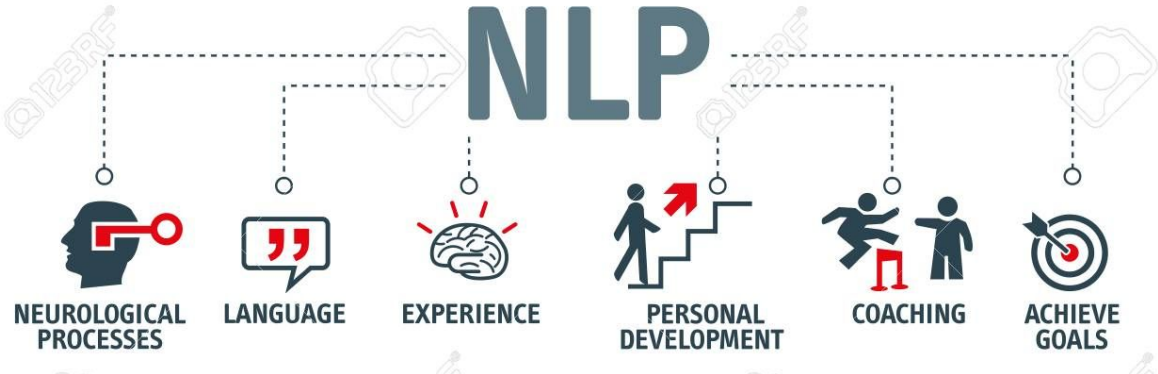



**Natural language processing**

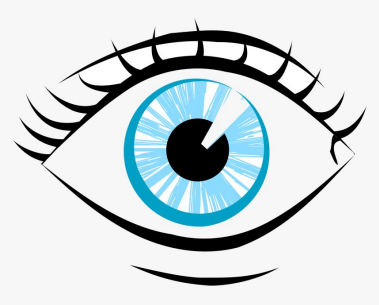
# Ai today is just trying to mimic the senses



**Perception ,Perspectives**

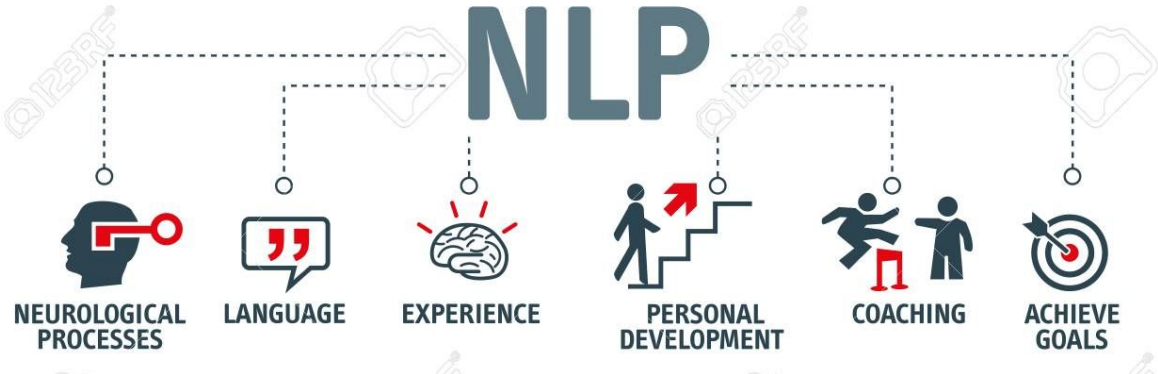


# Ai today is just trying to derive



+

**Insights and Intent**



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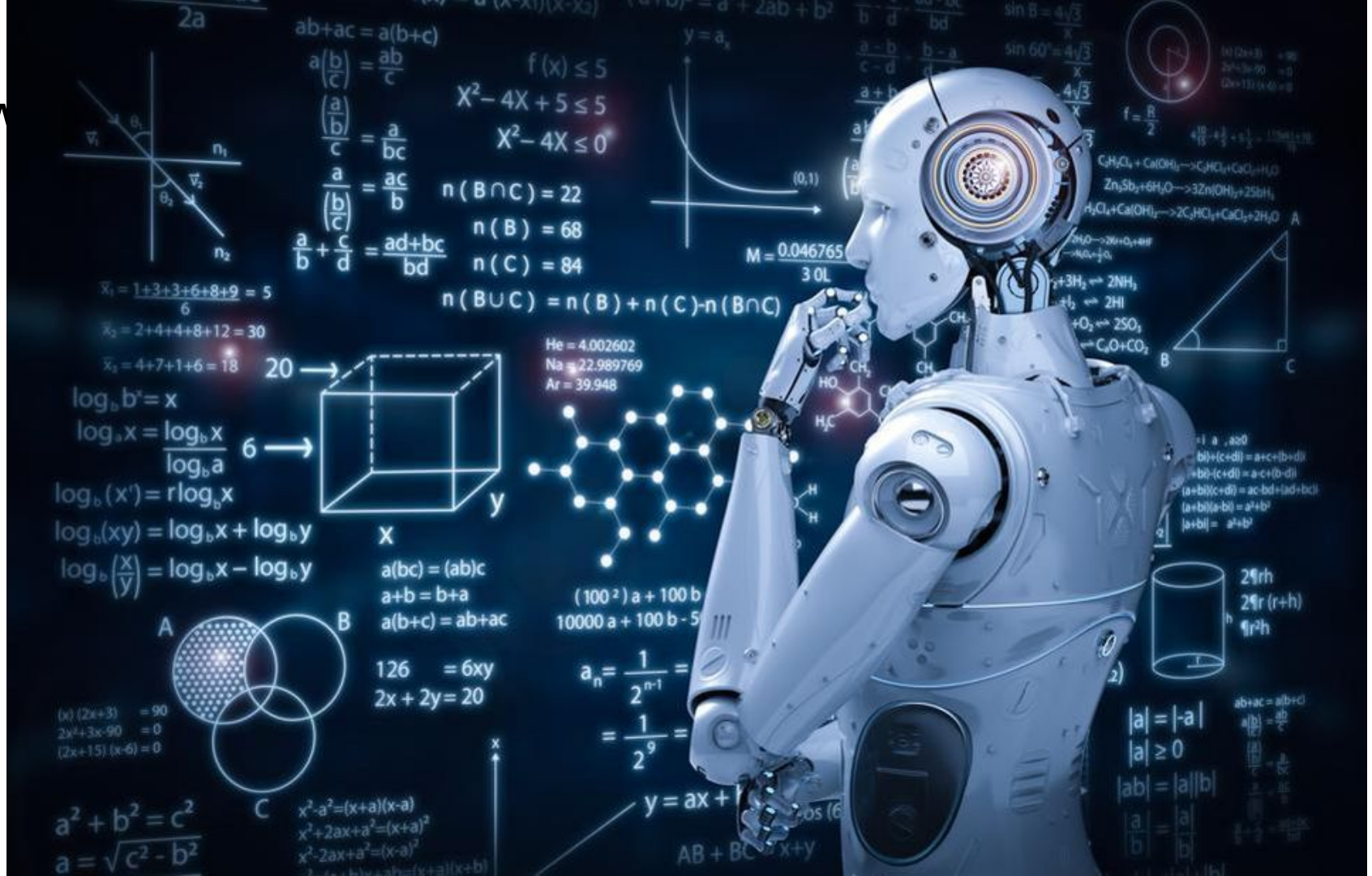
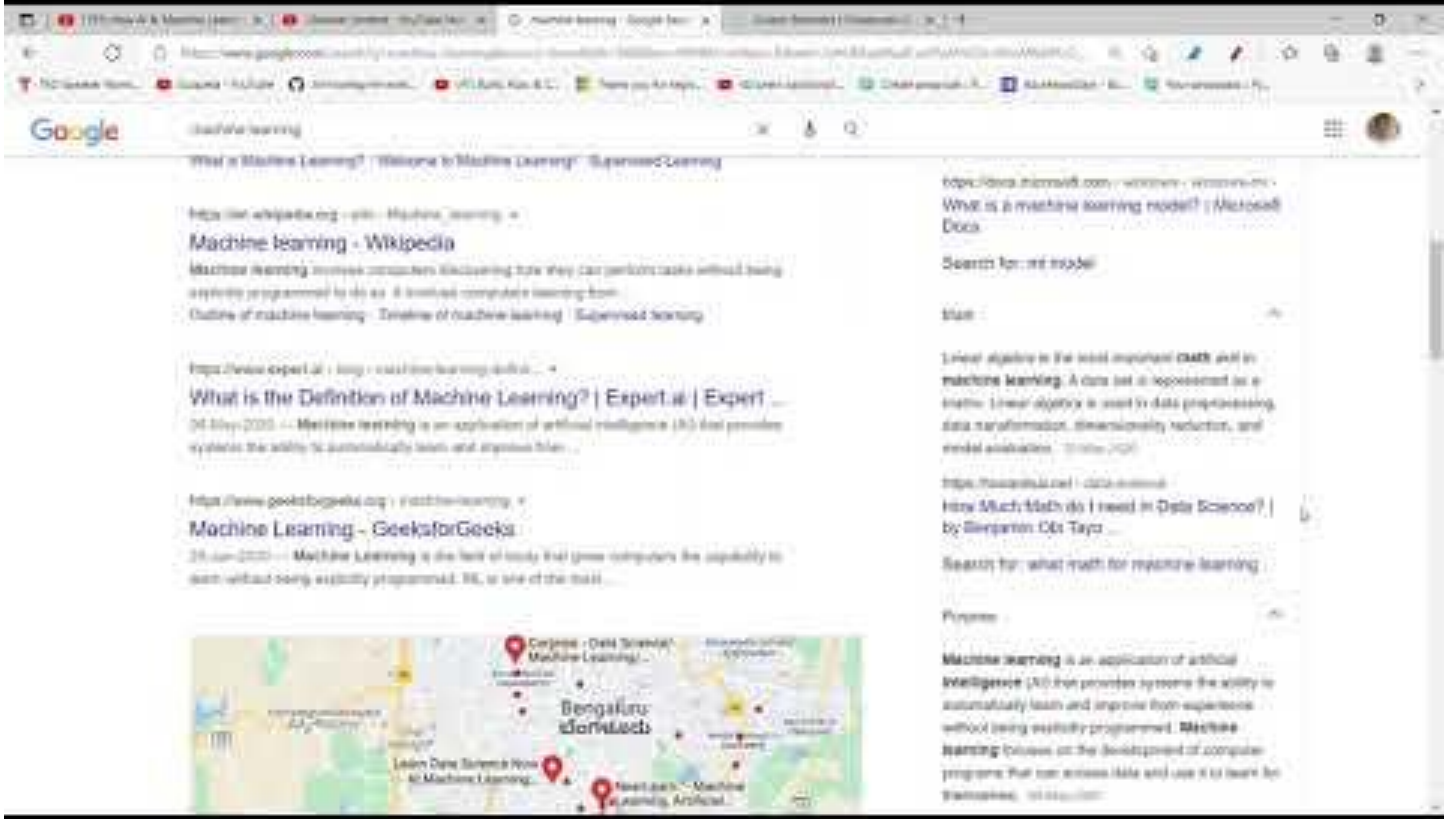

ab+ac = a(b+c)
f(x) ≤ 5
X²– 4X + 5 ≤ 5
X²– 4X ≤ 0
n(B∩C) = 22
n(B) = 68
n(C) = 84
n(B∪C) = n(B) + n(C) - n(B∩C)
20
6
y
x
log_b b^x = x
log_a x = log_b x / log_b a
log_b(x^r) = r log_b x
log_b(xy) = log_b x + log_b y
log_b(x/y) = log_b x – log_b y
a(bc) = (ab)c
a+b = b+a
a(b+c) = ab+ac
126 = 6xy
2x + 2y = 20
A
B
C
a² + b² = c²
a = √(c² - b²)
He = 4.002602
Na = 22.989769
Ar = 39.948
AB + BC = x+y

# What is Machine Learning?

Machine learning is the study of computer algorithms that improve automatically through experience and by the use of data. It is seen as a part of artificial intelligence.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Machine learning
What is Machine Learning? | Welcome to Machine Learning | Supervised Learning
Machine learning - Wikipedia
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Machine Learning - GeeksforGeeks
What is a machine learning model? | Microsoft Docs
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How Much Math do I need in Data Science? | by Benjamin Obi Tayo ...
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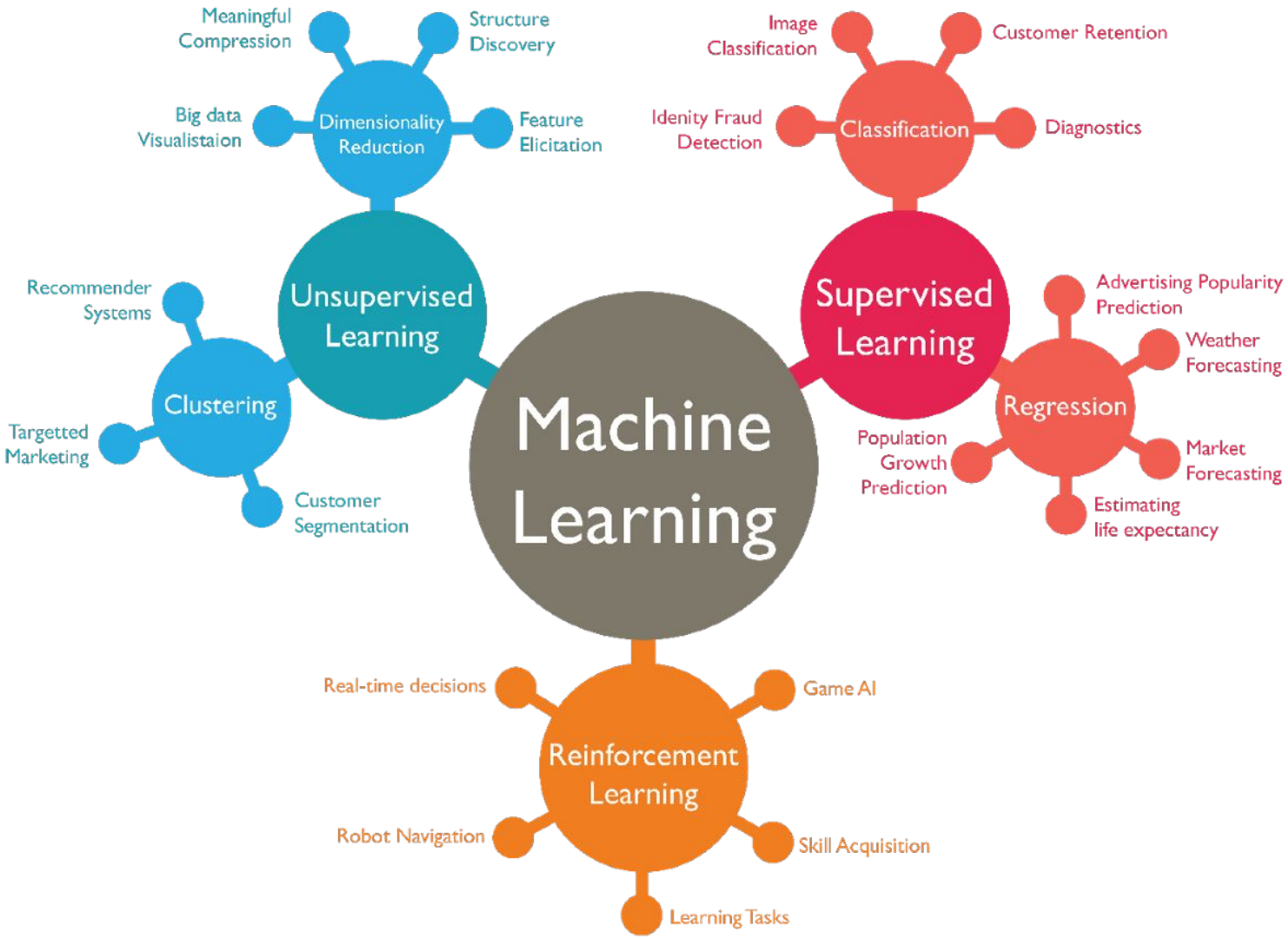
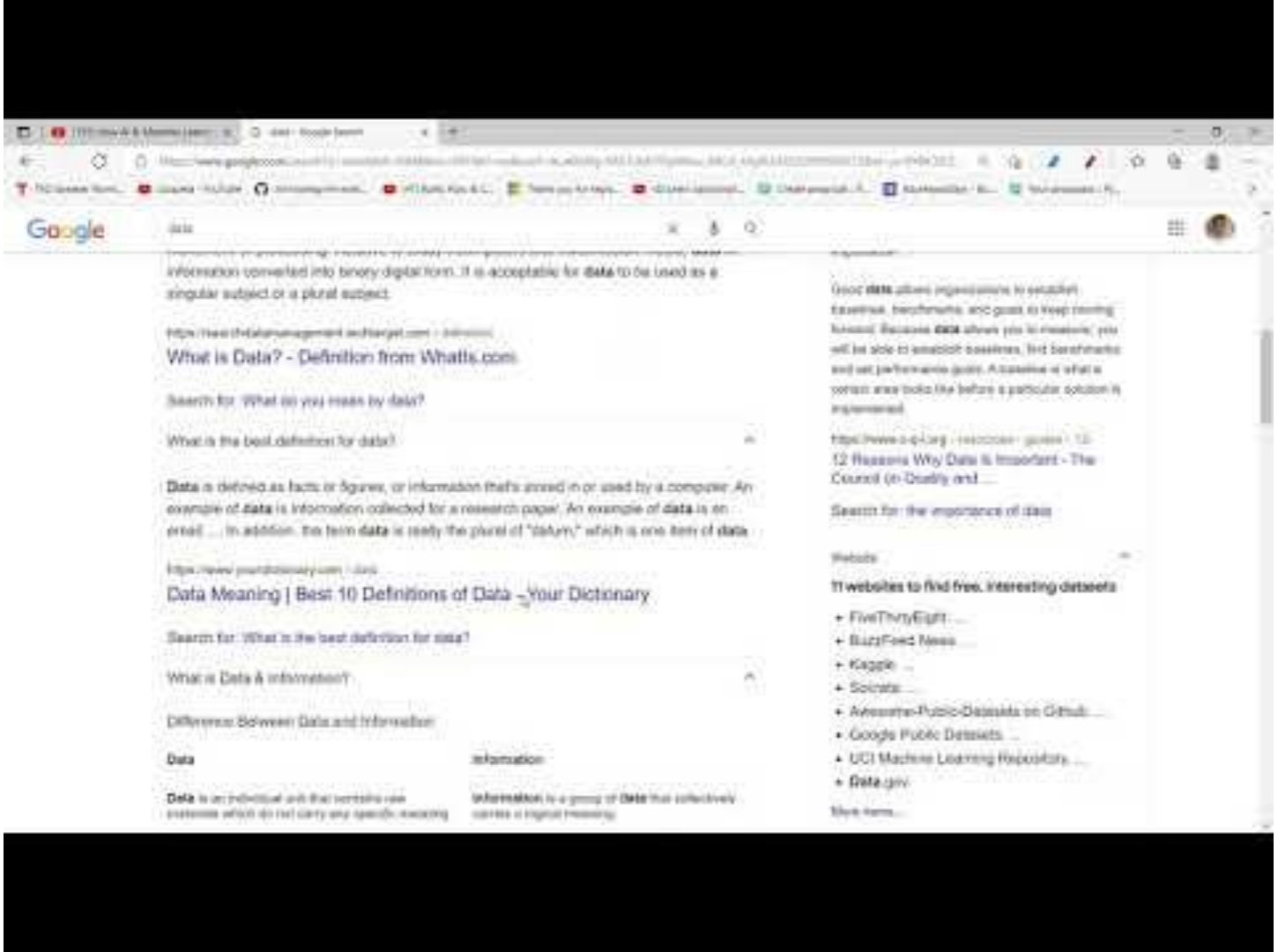
# Machine Learning Stereotypes

There are many of it

- Un-Supervised
- Supervised
- Reinforcement learning


Machine Learning
Unsupervised Learning
Dimensionality Reduction
Meaningful Compression
Structure Discovery
Big data Visualistaion
Feature Elicitation
Clustering
Recommender Systems
Targetted Marketing
Customer Segmentation
Supervised Learning
Classification
Image Classification
Customer Retention
Idenity Fraud Detection
Diagnostics
Regression
Advertising Popularity Prediction
Weather Forecasting
Market Forecasting
Estimating life expectancy
Population Growth Prediction
Reinforcement Learning
Real-time decisions
Game AI
Robot Navigation
Skill Acquisition
Learning Tasks

# What is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data
information converted into binary digital form. It is acceptable for data to be used as a singular subject or a plural subject.
What is Data? - Definition from Whatls.com
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What is the best definition for data?
Data is defined as facts or figures, or information that's stored in or used by a computer. An example of data is information collected for a research paper. An example of data is an email. ... In addition, the term data is really the plural of "datum," which is one item of data.
Data Meaning | Best 10 Definitions of Data - Your Dictionary
Search for: What is the best definition for data?
What is Data & Information?
Difference Between Data and Information
Data
Information
Data is an individual unit that contains raw
Information is a group of data that collectively
12 Reasons Why Data Is Important - The Council on Quality and ...
Search for: the importance of data
11 websites to find free, interesting datasets
FiveThirtyEight ...
BuzzFeed News ...
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Socrata ...
Awesome-Public-Datasets on Github ...
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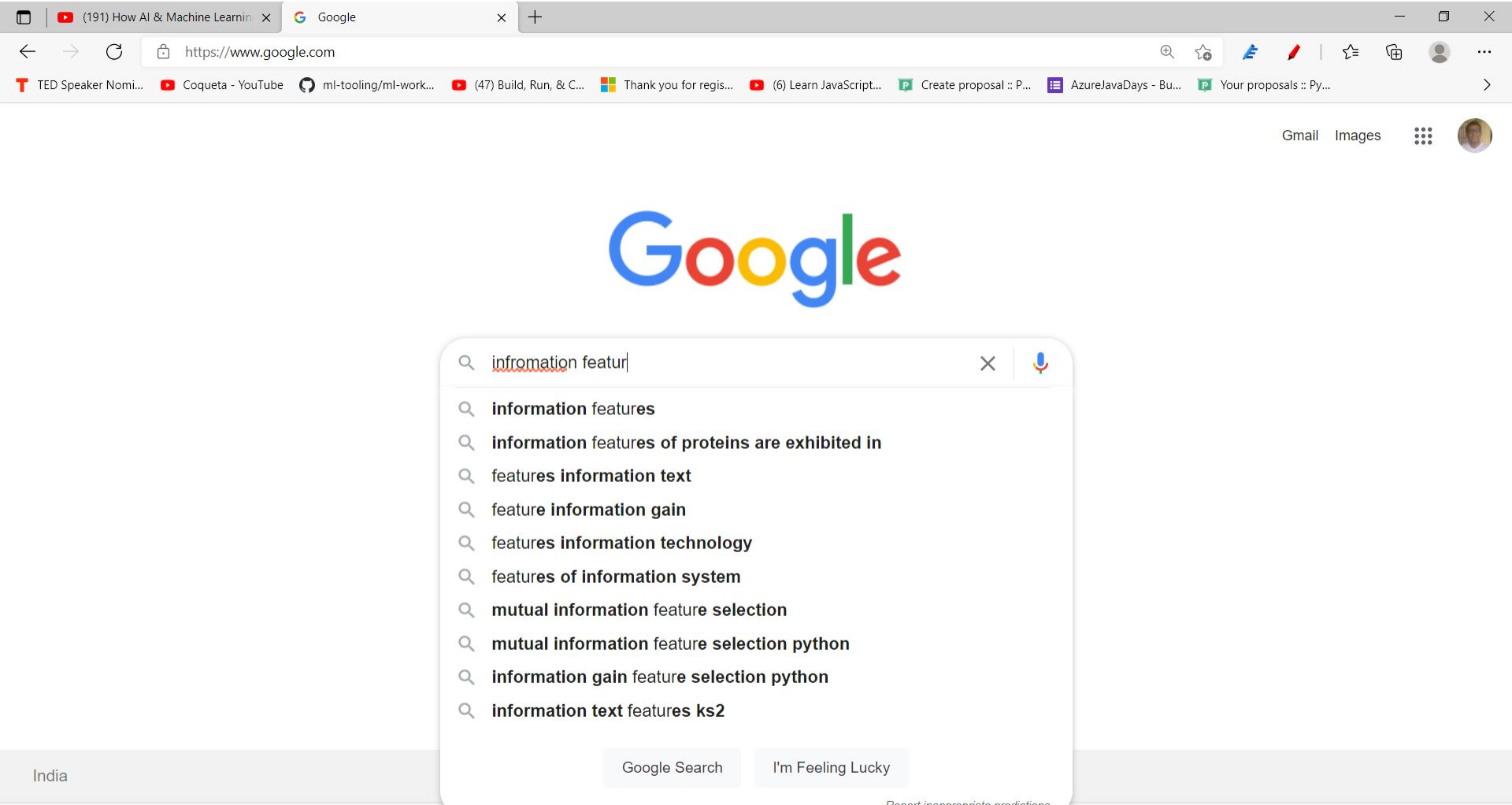
UCI Machine Learning Repository ...
Data.gov


(191) How AI & Machine Learnin
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ml-tooling/ml-work...
(47) Build, Run, & C...
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Your proposals :: Py...
Gmail
Images
Google
infromation featur
information features
information features of proteins are exhibited in
features information text
feature information gain
features information technology
features of information system
mutual information feature selection
mutual information feature selection python
information gain feature selection python
information text features ks2
Google Search
I'm Feeling Lucky
India

# Data for the Features and Attributes

What is the difference between attributes and features in machine learning?

**Attribute/Feature**: An **attribute** is an aspect of an instance (e.g. temperature, humidity). **Attributes** are often called **features in Machine Learning**. A special **attribute** is the class label that defines the class this instance belongs to (required for supervised **learning**).

26-Jul-2011

As nouns the difference between **feature and attribute**

is that **feature** is (label) one's structure or make-up; form, shape, bodily proportions while **attribute** is a **characteristic** or quality of a thing.

# Data Generation

I can only give some data as everything today is more of the Data Generation,as everything is a data today.

**Every things is because it is connected.**

# What is Banking Industry?

What is the banking industry?

**Banking** is an **industry** that handles cash, credit, and other financial transactions. **Banks** provide a safe place to store extra cash and credit. They offer savings accounts, certificates of deposit, and checking accounts. **Banks** use these deposits to make loans. ... **Banking** is one of the key drivers of the U.S. economy.

https://www.thebalance.com › what-is-banking-3305812

Banking: How It Works,Types, How It's Changed - The Balance

# What is Finance Industry?

What type of industry is finance?

The **financial** sector is a section of the economy made up of firms and institutions that provide **financial** services to commercial and retail customers. This sector comprises a broad range of **industries** including banks, investment companies, insurance companies, and real estate firms.

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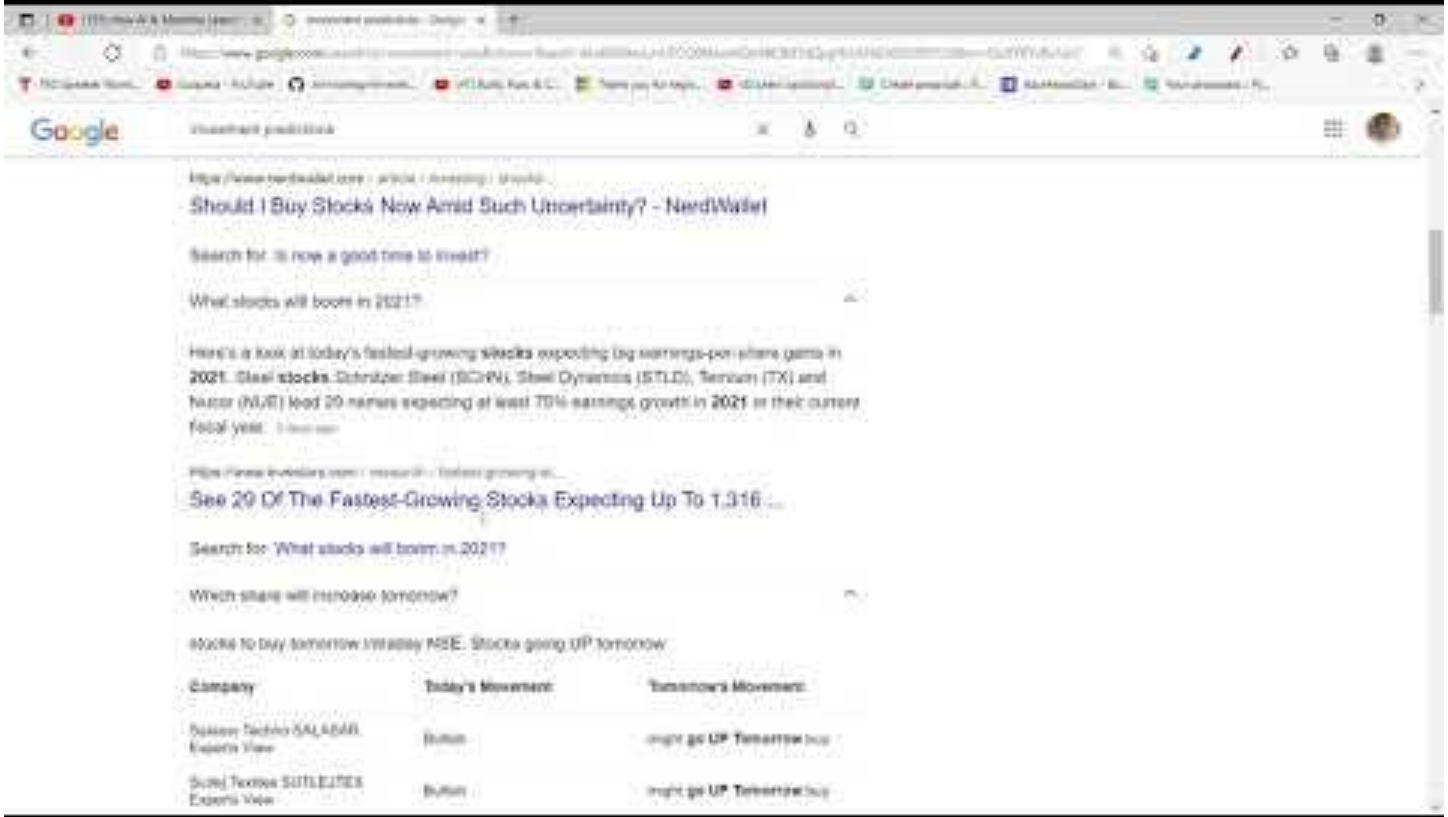
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Company
Today's Movement
Tomorrow's Movement
Expert's View
Buy
Expert's View
Buy

# So keep in my you need somebody to guide you

At every time and at any cost - Subject Matter Expert

# Fraud Analysis

What skills does a fraud analyst need?

**Fraud Analyst Skills and Qualifications**

- Attention to detail – perceiving small changes and things that “just don't seem right” helps detect **fraud**.
- Organization **skills** – keeping track of what is going on, handling information from various sources, and following up in a methodical manner stops **fraud** from progressing.

More items...

# Risk Analytics

- Value-at-**Risk**
- Mark-to-Market
- Counterparty Credit Exposure
- Counterparty Collateral Requirements
- Cost of Credit
- Hedge Effectiveness Test
- Stress Testing
- Anomaly Detection
- Credit Worthiness for the Customer
- Monetizing on risk with Priority

# Real Time Analysis

The Real time data acts as an input thus there is no output that will affect us as the outliers will not be in the Scope at all.

- Data is processed in batches and buckets
- We need a minimum latency system
- BIFS is the Key here

# Some other projects are

- Risk Assessment
- Fraud Detection And Management
- **Financial** Advisory **Services**
- Trading - Machine Trading.
- Managing **Finance**

# Game theory

The study of mathematical models of strategic interaction among rational decision-makers is known as game theory. It has applications in logic, systems science, and computer science, as well as all disciplines of social science.

# Probability

Probability is a field of mathematics concerned with numerical explanations of the likelihood of an event occurring or the truth of a statement. The probability of an occurrence is a number between 0 and 1, with 0 indicating impossibility and 1 indicating certainty, broadly speaking.

So keep these things in mind Plausibility,Possibility,Probability

# Thank you

Now it's time to have some chit chat