

* What is Machine learning?

Arthur Samuel - 1959.

The subfield of computer science that gives computers the ability to learn without explicitly programmed.

↓
Pattern in the data.

→ Machines learn patterns from the data and replicate the same in future.

✓

✓ Gmail

Primary

→ Get 50% discount.
→ (Offers)
→ (Buy 2 get 1)

Spam or ham

↓
Primary

Virat Kohli

58

62

63

100

105

110

* A computer program is said to learn from experience E with respect to some class of Tasks T and Performance measure P if its performance at tasks in T as measured by P improve with Experience E .

Tom Mitchell - 1997.

task(T) → Classifying an email into Spam / ham.

Experience (E) → watching your label of emails.

Performance (P) → The no of emails correctly classified.

eg Alexa

eg Credit Card fraud

eg Sentiment Analysis

eg Autonomous Vehicle

Why ML is famous these days?

- Advanced Processor.
- Data is new oil.

A lot of data

↓
Process this data (advanced processor)
↓

Valuable Insights

↓
improve business performance

ML types

- ↓
 - Supervised learning
 - Unsupervised learning
 - Semi-Supervised
 - Reinforcement learning