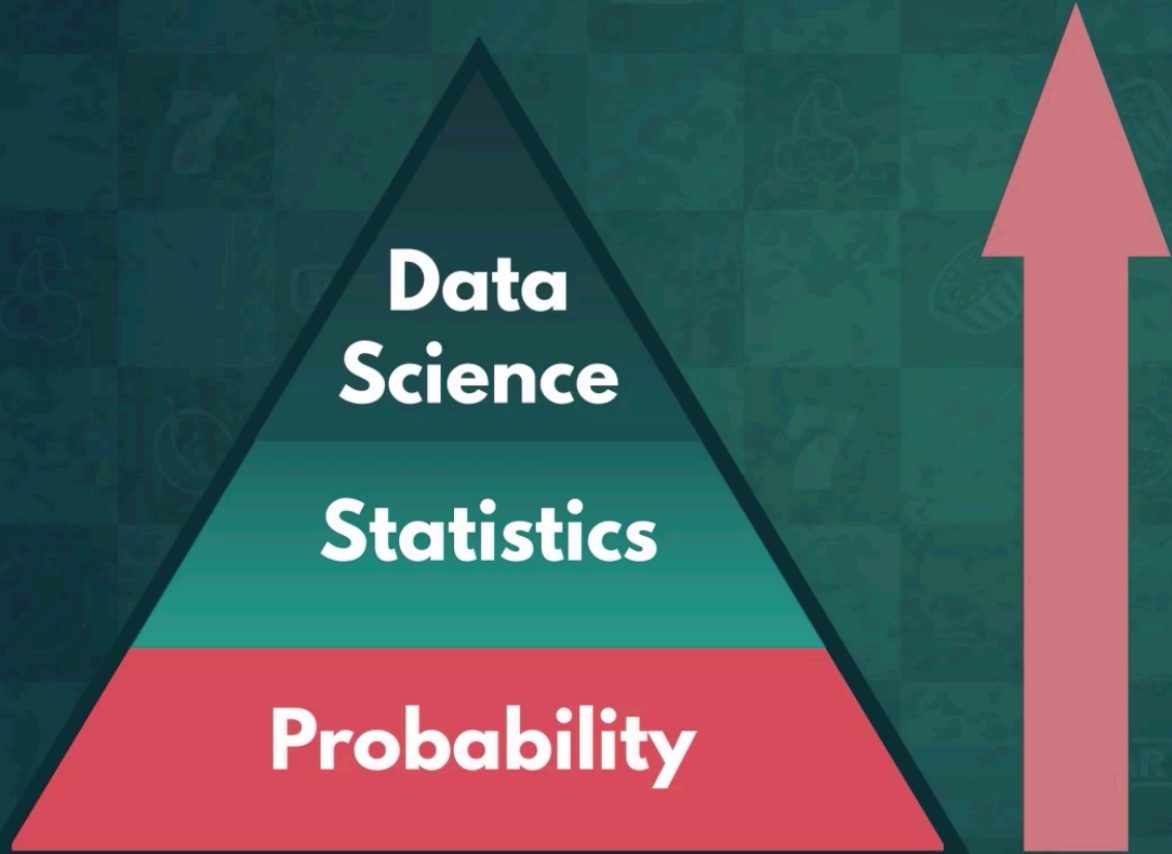


# Data Science



**Concrete**

**General**

# Data Science

Regressions  Supervised ML



● Data analyst

● Data scientist

● Data engineer

# Data Analysis

- Analyse past data

- Find insight



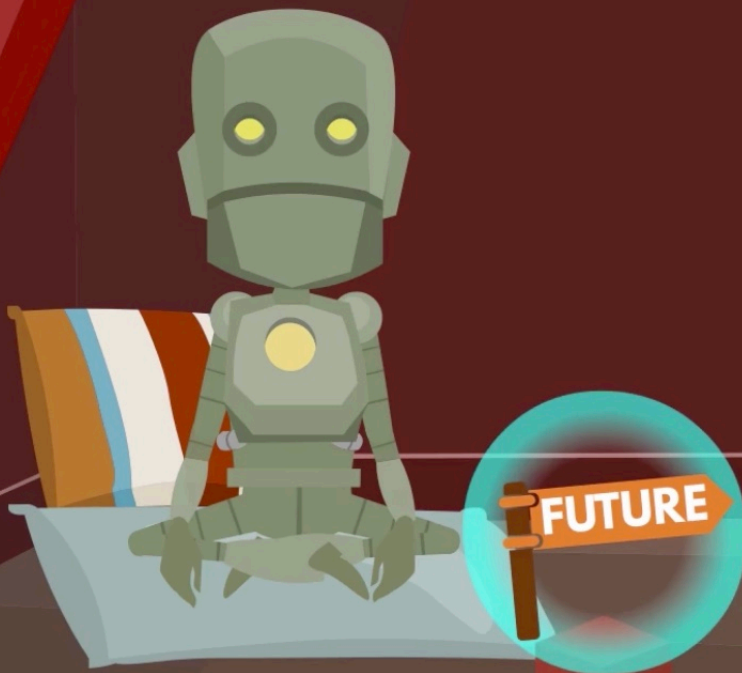
- Make reasonable predictions

1.60

# Mathematical Modelling

We run artificial simulations to see how well our predictions match up to various possible future outcomes

**“Monte Carlo” simulation**

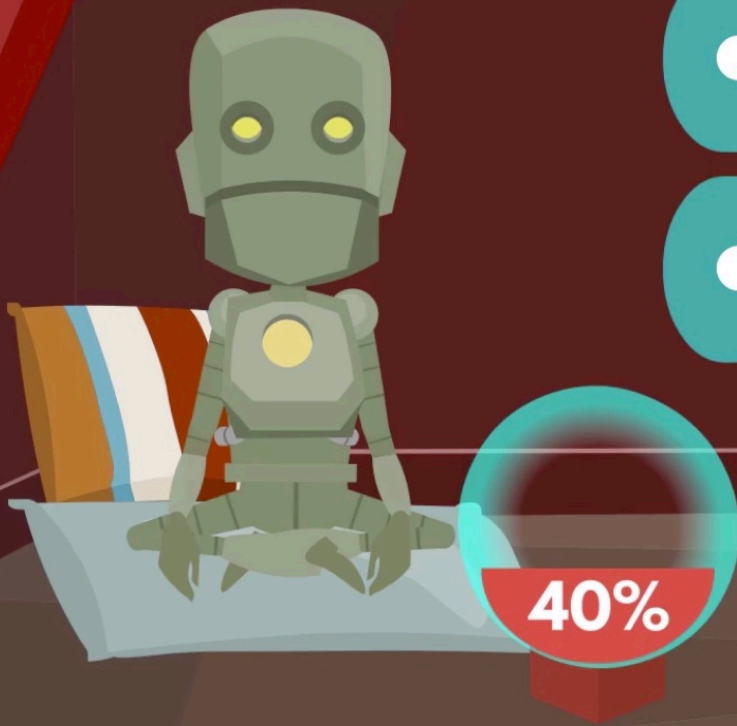




## 1.60 “Monte Carlo” simulation

We generate artificial data to test the predictive power of our mathematical models

- Not completely random data
- Follows restrictions



$$P(x) = 0.4$$

of the data must match  
the outcome

# Expected Values

ML



An extremely fast paced trial-and-error process

The more predictions it makes,  
the more precise they become



# Forecasting

ML and DL have very high predictive powers



NOT  
100%  
certain





# Forecasting

Can completely change the anticipated course of events

**=> Even data scientists assign probabilities to their predictions**



# Summary

Fullscreen

## Data science:

**An expansion of probability, statistics, and programming that implements computational technology to solve more advanced questions**

**it is fundamental to understand PROBABILITY**

**NOT  
100%  
certain**