Probability for HACKERS

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< About me >

- Machine Learning Engineer @Juxt Smart Mandate
- AI and ML Enthusiast
- Like to crack puns- Ni..pun (^-^)
- @nipunsadvilkar on Github
- More on website:

https://nipunsadvilkar.github.io/

#Questions:

1. How many of you are from heavy mathematical background?
   E.g Engineering, Physics

2. How many of you have used ML libraries like sklearn in your work?

3. How many of want to get into following fields?
   - Artificial Intelligence
   - Machine Learning
   - Deep Learning
   - Data Science

MOTIVATION #1

Prerequisite for any famous AI and ML course/Book

CS229 Machine Learning Autumn 2016

Course Information

Instructors:

Andrew Ng, John Duchi

Course Description

This course provides a broad introduction to machine learning and statistical
(generative/discriminative learning, parametric/non-parametric learning, neur
dimensionality reduction, kernel methods); learning theory (bias/variance trac
control. The course will also discuss recent applications of machine learning,
bioinformatics, speech recognition, and text and web data processing.

Prerequisites

Students are expected to have the following background:

- Knowledge of basic computer science principles and skills, at a level suf
- Familiarity with the probability theory. (CS 109 or STATS 116)
- Familiarity with linear algebra (any one of Math 104, Math 113, or CS 20

Deep Learning

An MIT Press book

Ian Goodfellow and Yoshua Bengio and Aaron Courville

Deep Learning

Hackers' approach to learn Math

- Math is difficult but through coding, we can make it more interactive and intuitive
- I like this quote:

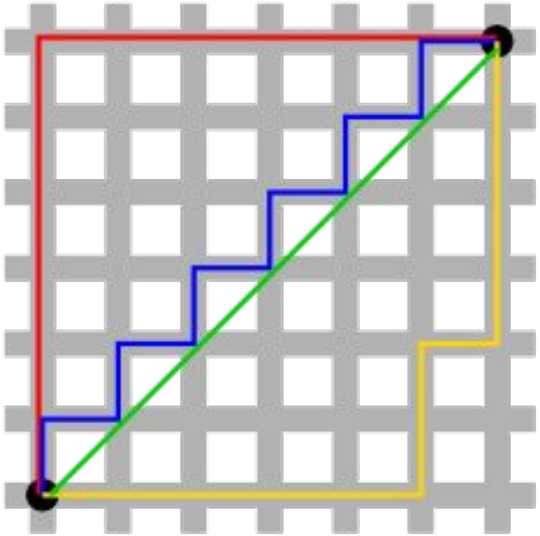
  "Statistics is Hard.
  Using programming skills it can be easy"
  – *Jake VanderPlas (Statistics for Hackers - Pycon 2016)*
  [Same for Probability]

- Though, I want you to focus more on concepts and not on code (Code is available on Github, have a look at it later)

MOTIVATION #2

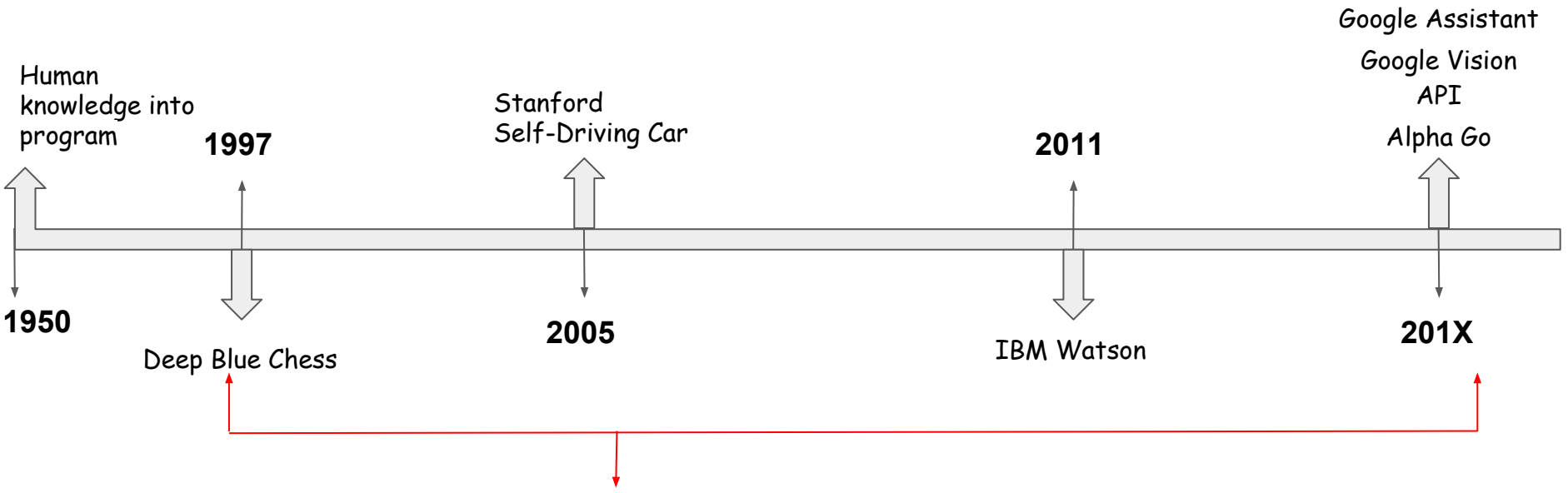
Modern AI

"Study and design of any agent that behaves in an intelligent way"



MOTIVATION #2

HISTORY OF AI

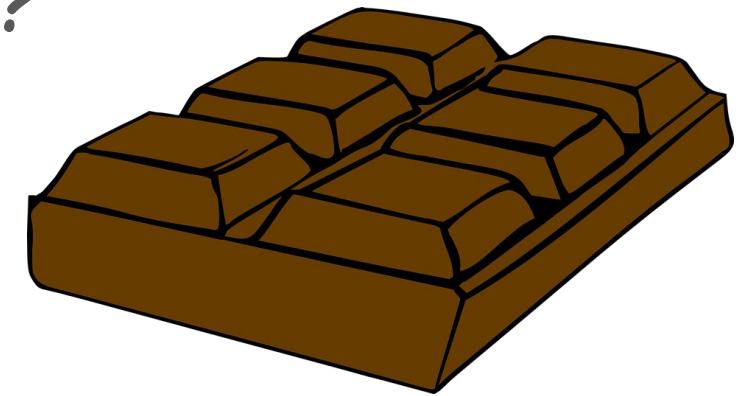


Uses two revolutionary ideas:

1. Probability with Examples
2. Artificial Neurons

Demo Time!🕒

WHO LIKES CHOCOLATES HERE?



Let's get started...!

With the Jupyter Notebook