CS230

Stanford Deep learning

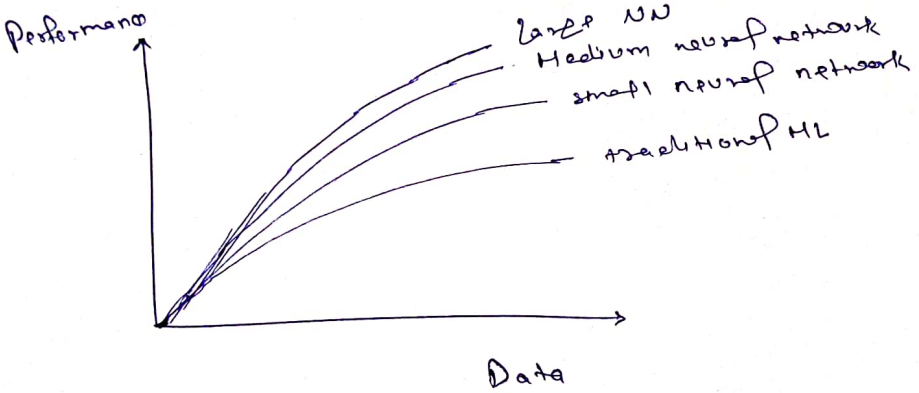
Syallabus Project Section Lecture Blog FAQ.

flipped Classrom - Deeplearning.ai Specialisation.

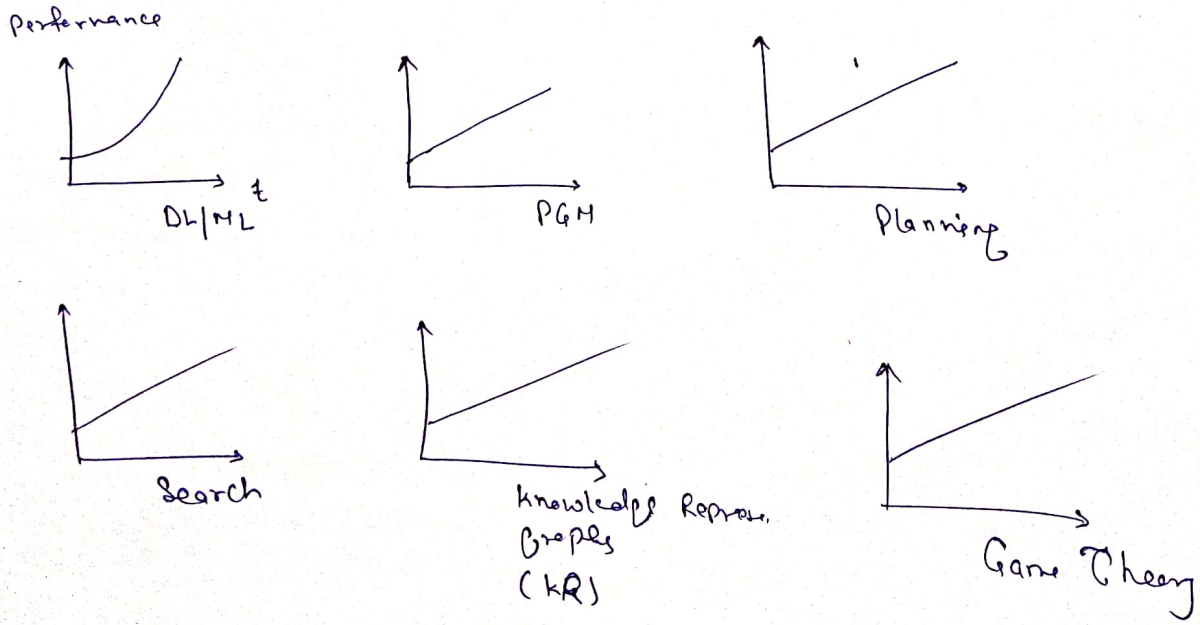
Lecture - 1

Why deeplearning is taking off??

- Because we are creating more & more data in every field from digital x-ray, digital records of everything you buy & every other aspect.



- Computational power to train large enough neural networks.
- AI have many other tools that are beyond machine learning & deep learning. take class of CS221. Great Class!
- Probabilistic Graph Models - CS228 (PGM)
- Knowledge graphs - used highly by Industry



Goals

→ Deep learning algorithms & give practical experience of their applications.

→ " Today there are lots of ways to learn these tools, but one of the things that we will give is whether or not you should do what you do."

" Remember, all carpenters have same tools, it's the mastery that differs."

" One team of 30 was wasting from 3 months & no improvement. One collegue spent a weekend & 10x - more than it result."

mlyearning.org

Shopping Mall + Website ≠ Internet Company

" One of the thing that make a internet company is not whether or not you have a website. But it is Organising your team to do what internet let's you do."

Company + Neural Network ≠ AI Company.

AI teams tend to be
- very good at strategic data acquisition.
- Organise data differently
- Pervasive automation opportunities.
- New job Description.

" Machine learning algorithms to give feedback on coding homework ~~and~~ assignments"

→ Chris Peach
Stenford.

9/20/22 - 9000 Object at a time it can detect.

- Coloring Black & white pictures with DL
- Predicting price of an object from a picture.
- Predicting atom energy based on atomic structure
- Visual QA
- Cancer / Parkinson / Alzheimer Detection
- Activity recognition in video
- Music genre classification
- Accent transfer in speech
- Generating images based on given legend
- Detecting Earthquake precursor signals.