

MACHINE LEARNING ASSIGNMENT 1

QUESTION 1:

How and where is facebook using Machine Learning to improve user experience? (2.5 marks)

ANSWER:

Facebook uses ML for multiple applications. Few will be discussed in details while others will be briefly mentioned.

People You May Know

Many a times it has occurred when Facebook has predicted people we may know with quite an accuracy. This is because ML algorithms analyze our profile, our interests, our current friends, relatives, our searches, places we visited and other parameters to calculate the people we may really know.

Deep Text

ML algorithms that facebook uses are efficient enough to contextually determine the meaning of the words used in a sentence and distinguish the relationship of the words.

This helps facebook to pinpoint violent, provocative and abusive language and take necessary action according to it.

Translation

As Facebook is a worldwide phenomenon, that means people that are not familiar with English also use it. So Facebook came up with a tool using ML that translates text in preferred languages. Facebook's Deep Learning translation model uses a neural network-based system that employs long short-term memory (LSTM) networks to analyze and translate whole sentences rather than word-for-word

Deep Face

Another marvellous achievement of ML is that it allowed facebook to recognise photos which are automatically identified by its AI. Hence by this moods can be monitored (happy, sad, depressed, anxious, calm, disgust) these data sets can be used to identify people at the risk of mental illness. It also has the ability to extract one's hobby, interests, friends group etc.

OTHERS:

1. Placing relevant advertisements.
2. Article recommendation etc.

QUESTION 2:

How do you think deep learning can change the world and do wonders? (2.5 marks)

ANSWER:

Deep learning has the potential to influence and change the world vastly as many or all the tasks whether complex or mundane will be taken care due to this technology.

Security will vastly improve

Surveillance will be very efficient and criminals can be recognised in crowd

Medicine prescription and diagnosis can be made accurately.

Self driving cars

Banking, Finance, Share value prediction

Real time facial Reenactment

Rescue missions (living robots)

and a lot more.

QUESTION 3:

What is your dream AI project that can become into reality and can have a commercial value. Justify your answer. (5 marks)

ANSWER:

In the field of medicine, doctors are responsible for diagnosing a disease. The earlier the disease is diagnosed the better the chances of treating the affliction. When doctors can are not able to diagnose properly they experiment various drugs in order to observe the reaction of the patient's body to those drugs and then put forward a diagnosis. This some times becomes a trial and error technique where the doctor continues to administer drugs in order to correctly diagnose the disease. However, if the entire data set and previous data files are given to AI as labelled data. It can simulate the effects of drugs without risking any side effects to the patients and coming with an accurate diagnosis.

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