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Machine Learning Batch -02

Assignment 1

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

Ans: Facebook uses Machine learning in every part. When you are scrolling the news feed ,you are looking at Artificial Intelligence (Machine learning).For example, if you upload an image at Facebook with your friends, animals or with pretty background, then you might get a suggestion whether you want to tag other person or not with this picture.

Supposedly this type is referred as "**Supervised Learning"** in which Facebook would learn from past knowledge and mark it (giving suggestion of tagging) to that particular image.

It also use AI, in partitioning the content of your feed on basis of primacy. For example, have you ever talk to someone daily or go through his/her news feed regularly? then you must have noticed something unusual at Facebook. The person that you have do so, would always give the high priority in every aspect like, whether you click the chat button, Likes of any post, News etc. , that person would always be on the top. In other words all the activities related to that particular friend would be separated from others friends. Thus, we can conclude that Facebook use Machine learning in every feature.

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

Ans: Deep learning has attracted a lot of attention because it is particularly good at a type of learning that has the potential to be very useful for real-world applications. It is becoming increasingly clear, for example, that artificial intelligence (AI) is rapidly turning into such a transformative technology. In my opinion, deep learning can change the world rapidly and make the world more modern. We still can see excellent examples of deep learning around us which has made our lives easier and more flourished. One of the obvious examples of this is self-driving cars. It reduced the human work. As we know, internet has evolved around like a blast that every single of us now can't live without it. In past, internet was just a word and hard to believe for people that it will happen but as technologies has improved day by day internet can be seen now everywhere.

Deep learning can change the world as we can see ourselves and compare it with the past, there is a huge different in living standards. In past, the PC's size were huge, there was no internet, there was less use of robotic machines and more manual work. Thus, we can say that deep learning can do more wonders in future. May be there will be use of robots more compare to now. May be the manual work be reduced more compare to now. May be humans can fly or become invisible or see the future who knows! But we can't say it's not impossible in these modern age if these inventions are possible like UDrone , Combo CCOX,ILO ,PITAKA MagDock ,OptiShokz Sunglasses ,Vinpok Split ,Trident etc. then there might be more and better inventions in future.

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

Ans: My dream AI project is **Mind reading robots.** The development in AI is rapidly increasing. There are so many theories and work going on to teach the robots to read the mind for example researchers at New York's Columbia University have now succeeded in teaching AI to read our thoughts. According to that research, artificial intelligence can not only analyze human brain waves, but also make them audible again. Researchers read out words and numbers to participants and measured the activity with a brain implant in the hearing center. This data was then sent to an AI, which compared it with the original spoken words. In this way it learns to evaluate the brain waves and reconstruct the words itself - it can actually read thoughts.

In past, there was an invention in which a robotic arm can read mind waves and move according to it but what happened here goes one step further. You can actually reconstruct spoken language from brain waves. However, human brain is incredibly complex and such thing cannot yet be universally applied to all kinds of conversations and thoughts. This is science fiction yet. In films and books, of course, the technology is already more advanced. Again and again dystopic scenarios with AI-supported monitoring are drawn there, which could use as a powerful tool for mind reading. However, this is pure science fiction and would involve complex brain surgery.

It has many benefits for disabled people. For example, e.g. patients in coma, who are completely awake but can no longer move a muscle or talk. Or people like the physicist Stephen Hawking's who had to laboriously use a system with their mouths in which they could select individual letters to make themselves understood. Such systems could be built much more smartly in the future. And it is possible that paralyzed patients could communicate directly via a computer, in real time. If this is possible it could be a great help and a change in the society, it's not much of a threat to us but a great invention which can change lives.