Horizon

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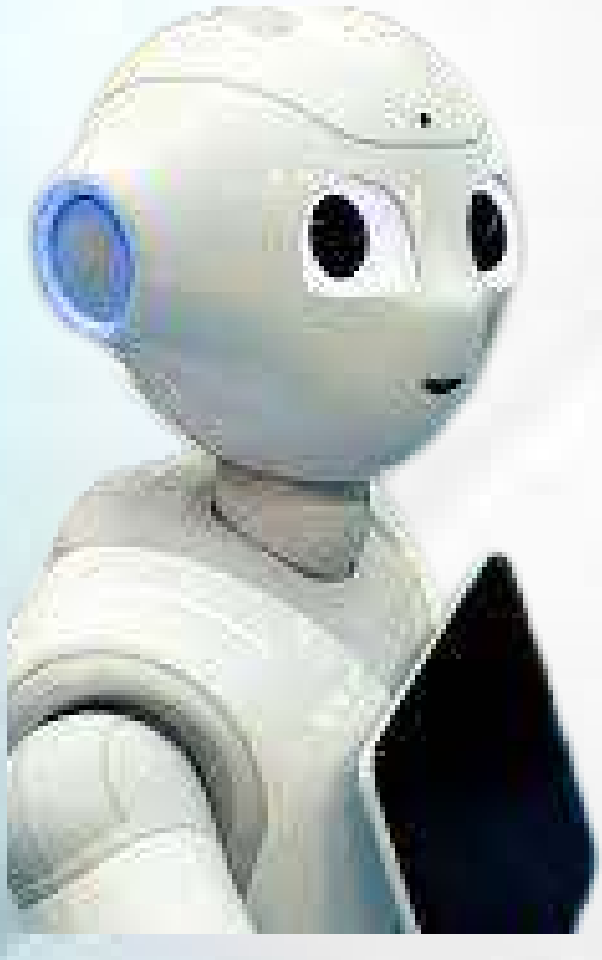
Tesla- Gaming feature While Driving



Network Security

Machine Learning

"Look to the horizon, spread your wings and fly"

FROM THE EDITOR'S DESK

"Write what should not be forgotten"

-Isabel Allende

We the editors of magazine would first like to express our special thanks and gratitude to the Computer Science Department for giving us this tremendous opportunity to create this magazine. Next, we would like to thank all the authors, poets and artist for their abundant contributions,

Here we have put together a variety of articles about Machine Learning to articles on Robot, mesmerizing poetic verse and a beautiful art work by our fellow students.

ope you have as much fun reading this magazine, as we had creating it.

From the entire team of 'Horizon'

HAPPY READING

The Girl

From the scented ocean of heart came the angel of light
And from lap of the day came thirst for love,a new start
Earth, it was dipped in the wonders of rising star
And I fathomed at the looming day and the blue sky

Deep in the woods beyond the golden bush I saw her
A girl drenched in rain and fleeing from night
She was running, away from the depth of woods
And crossing the wards, she phased in doubt and glee

The wild fall, when she passed kissed her with love
And those drops of water hung from her cheeks
Sunlight, it felt her skin and was awed in pleasure
The trees blushed and was charmed by her grace

And by every passing sec she came closer and closer
My heart, it started to rush and my thoughts they fret
Then through the windows I saw her peek into my bed
And the girl, she was 'morning' the beginning of all

Machine Learning

Machine learning (ML) is a form of artificial intelligence and practice of teaching a computer to learn. Machine learning includes tools and technology that we can use to answer our questions with our data.

Many google services like image recognition, translation tools and even assistants like Alexa, Siri all are results of machine learning. The YouTube recommendation we get, face detection and recommendation systems are also an example of machine learning. Today machine learning applications are increasing. The machine learning can also be used in many medical fields like skin cancer detection and even transportation facilities for self-driving cars like tesla.

Is machine learning really important? Yes, it is. With the help of machine learning our life would become much easier. There is a lot of data being generated today by peoples, phones and computers and it's going to increase day by day.

With the help of ml engineers, data scientist, data engineers all these data are given to machines that can learn from the data, and improve from it. The global machine learning market is predicted to grow from $8 billion in 2019 to $100 billion by 2025.Machine learning has the power to bring transformative changes across industries. With machine learning being so important in our lives today, it's impossible to imagine a future without it.

-Jacob Johnson K
S1 CO

Tesla-Gaming Feature while Driving

After facing a lot of criticism Tesla has finally disabled its gaming while driving feature. 'Passenger Play' will be locked when the vehicle is in motion. Changes will be made in the latest software update.

Even though the feature was not for the driver and asked to verify if it was the Passenger itself, there was nothing in the hood to prevent the driver from playing the game. Initially everything was fine until in December 2020 gameplay was allowed while moving. The change was brought into light by a Tesla user who later complained to the NHTSA mentioning it as "recklessly negligent". Nearly 3000 road deaths were caused due to distracted driving per year.

The new update will ensure no gameplay while the vehicle is in motion. Also adhere the driver from playing the game.

- Ashwin Sivasankaran
S3 CS1

Network Security

With the invention of the internet in 1983, the world has evolved and grown into a fully digitalized era. Every task that we come across can be done through digital media. We no longer require the amount of manpower and time that we used to spend on our daily tasks. Every single aspect of our lives has been digitalized. Even the menial tasks like paying our bills, grocery shopping, education have been made to be done easier and faster.

But this requires sharing our information with a huge number of websites, organisations and the likes. Sensitive information that was kept hidden has been exposed in a way that might raise our shackles. Therefore, there has been a raising need for privacy online. Hence Network Security comes into play. Network Security refers to the different applications, policies, rules and guidelines that have been put in place to prevent misuse of data, detect threats and malicious contents in a network.

This might include security provided to a particular person, organization or community through hardware and software technologies.

Security is an ever-evolving need. With the rate at which we seem to progress digitally, there also seems to have developed when it comes to the attacks and threats to networks. Day by day we see more and more cyber-crimes that take place. Data breaches, viruses, Fraud, malware, phishing are just a few of the attacks that we face.

There are a lot of levels that come under network security.

- Physical network security is where we have to physically protect authorised personnel from gaining physical access to hardware and software using biometric scans, password protection is just a few of the ways that can be used to physically protect a system.
- Technical network security is a two-step process Here we have to stop attacks from within and outside. This might include protecting a network against malware, viruses and threats from and outer personnel and leaking of data, sharing of sensitive information through the employees.
- Administrative Network Security happens by restricting information to the employees. It defines how much information that a person can view of a particular status and their authentication.

Some of the tools that can be used to implement network security are as follows.

- Antivirus Software or Antimalware Applications:

Certain Software and Applications have been introduced to prevent threats like viruses, Trojans, ransomware and worms. Good Antivirus software prevents any unwanted threats from entering a system and provides regular check-ups and updates.

- Firewall Protection:

This provides a barrier between your trusted network and any external networks. This normally happens by defining a set of rules that must be met before we allow access for an outer network to your inner network. This usually takes place in the form of permissions.

- Email Security:

A variety of threats can gain access to your network through emails. Several applications, products and services have been provided to protect your email accounts and contents safe.

- Nora Raju T
S3 CS2

Robots Simply Just Tools

The positive aspects of treating a robot like a person is precisely why roboticists design them as such we like interacting with people. As these technologies become more human-like, they become more capable of influencing us. However, if we continue to follow the current path of robot and AI deployment, these technologies could emerge as far more dystopian than idealistic.

The Sophia robot manufactured by Hanson Robotics received honorary citizenship from Saudi Arabia, holds a title from the United Nations, and has gone on a date with actor Will Smith. While Sophia undoubtedly highlights many technological advancements, few surpass Hanson's achievements in marketing. If Sophia truly were a person, we would acknowledge its role as an influencer. However, worse than robots being lunatic agents, goal-oriented without morality or human judgment, these technologies become tools of mass influence for whichever organization or individual controls them.

If you thought the Cambridge Analytica scandal was bad, imagine what Facebook's algorithms of influence could do if they had an accompanying, human-like face. Or a thousand faces. Or a million. The true value of a persuasive technology is not in its efficiency, but its scale.

There are fundamental questions that are important for social technologies to answer because we would expect the same answers when interacting with another person.

Who owns or sets the mandate of this technology? What are its objectives? What approaches can it use? What data can it access? Since robots could have the potential to soon leverage superhuman capabilities, enacting the will of an unseen owner, and without showing verbal or non-verbal cues that shed light on their intent, we must demand that these types of questions be answered explicitly. We often hear the question “When will robots take over the world?” And there is a stock answer: “As soon as we tell them to.”

Don’t scapegoat machines for decisions made by humans. I think robots get unfairly blamed for many human decisions and errors. It is important that we periodically remind ourselves that a robot is not your friend, your enemy, or anything in between. It is just a tool, made by humans and increasingly used to influence us.

- Sebin Tomy
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