VIDYABHARTI TRUST COLLEGE OF BUSINESS, COMPUTER-SCIENCE AND RESEARCH

Department of Computer Application's Newsletter

digital+

Get to know more about IT

Parag Agrawal, Twitter's new CEO

Twitter's new CEO Parag Agrawal, at 37 years of age, has become the youngest CEO leading an S&P 500 company, only slightly younger than Meta Platform Inc CEO Mark Zuckerberg. Agrawal, a graduate from the Indian Institute of Technology-Bombay's 2005 batch, replaced Twitter co-founder Jack Dorsey, who stepped down from the executive role

Today's scenario of IoT, AI and cyber security

Nowadays IoT systems are facing many cyber attacks by hackers due to characteristics of IoT systems. There are many possible different attacks which can be performed by hackers on IoT devices such as physical attacks, man-in-the-middle attacks (MITM), bt-MITM, False data injection attacks, botnets, DOS and DDOS attacks and the list is long. It is important to consider all the potential consequences of a technological development both before and after it is made public, as hackers are constantly looking to use new technologies to their benefit.

The growth of IoT systems will see multiple types of attacks. It becomes more and more of a threat, especially as massive networks such as smart cities begin experimentation. Massive networks are harder to protect with a multitude of attack surfaces. Also daily life and safety revolve around AI which needs to be more or less failure-proof.

It is necessary to protect IoT systems against these attacks as effectively as possible. As the number and speed of attacks grow, use of AI is necessary to defend those attacks and protect IoT systems intelligently and in real-time.

Several AI algorithms are introduced, also their applications in cybersecurity are investigated. Many machine learning models are developed to identify and create common attack detection systems which can help to secure IoT systems. In many cases, these models are not yet common in commercial applications but rather are still undergoing research and development. In a few cases these machine learning based models are still difficult to implement.

Most AI based cyber security systems are designed by using support vector machines, K-nearest neighbors, naive bayes algorithm, and decision trees. Different methods are developed by using these algorithms to analyse vulnerabilities in real time and protecting against most possible attacks can be performed on the system.

BHAVIK AJITBHAI CHAUHAN

ADHOCK LECTURER

UNKNOWN FACTS ABOUT INSTAGRAM

1. World's most popular photo-sharing social media gets millions of photos uploaded in it every day. - More than 40 Billion photos have been shared in the history of Instagram. Yes, 40 Billion!!
2. Instagram was created on 6th October 2010 by Kevin Systrom and Mike Krieger.
3. In 2012, just after 2 years of it's creation, Instagram was acquired by Facebook for $1 Billion.
4. As of now, there are more than 4.2 billion likes hit on Instagram per day.
5. Cristiano Ronaldo is the most followed Instagram user with 149 Million followers. He surpasses Selena Gomez, who currently has 144 Million followers.
6. Instagram's popularity can be estimated with the fact that 32% of the Internet users are on this photo-sharing app.
7. Instagram has had a massive growth over the last few years.
8. Internet users aged between 18 and 29 who use Instagram constitute of more than 59%.
9. Instagram was downloaded more than 1 billion times in the Google Play Store.
10. Around 95 million photos are uploaded in a single day.
11. 68% of the users on Instagram are female. Which is more than any other social media.
12. More than 5 million videos were uploaded in just 24 hours, when Instagram introduced videos.
13. Videos in Instagram get more than double the response than any other social media.
14. 91% of the Instagram posts are visual media or Photos.
15. One of the reasons why Instagram is so popular is because it lets people make money. The Popular figures or influencers charge up to $100,000 for a sponsored post.
16. Instagram is a US-based social media. But, 80% of the Instagram users are based outside of the US.
17. Posts with at least one hashtag generate 12.6% more engagement.
18. "Instagram is the most important social media", according to teenagers. Approximately 21% of the teenagers believe it is the most popular social media for them.
19. Globally, the most instagrammed food is Pizza. Second in the race is Sushi.
20. #Love, #Instagood, #Me, #Cute, and #Follow are the most popular hashtags used in Instagram.

CHIRAG DEVENDRABHAI MEHTA

ASST. PROFESSOR

TOP 05 ANDROID APP OF THE MONTH NOVEMBER 2021

1. Lawnchair 12
2. Scrolling Icons Live Wallpaper
3. Reev Dark Icon Pack
4. Minimalist Phone
5. ChariFree

PATEL REEMA RAKESHBHAI

19BCA97

TOP 10 IOS APP OF THE MONTH OCTOBER 2021

1. Waiyu
2. Phazr
3. Dark Browser
4. To Stories for Instagram
5. Dodo

PATEL VRUSHANGI MEHULBHAI

19BCA106
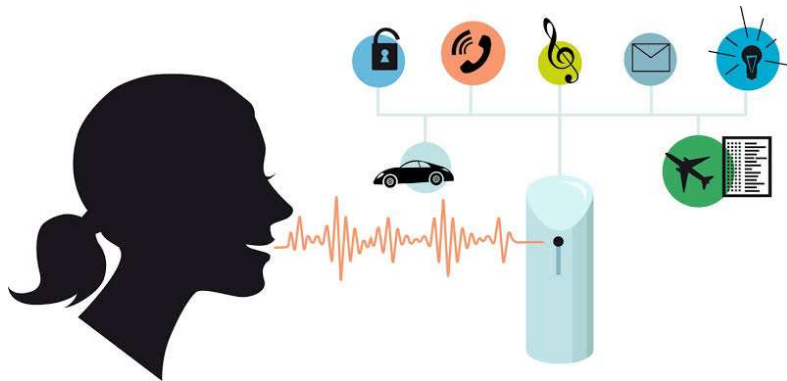
Artificial intelligence:

Artificial Intelligence was coined in 1955 to introduce a new discipline of computer science. It is rapidly and radically changing the various areas of our daily lives as the market for AI technologies is demanding and flourishing. There is a significant race between many start-ups and internet giants to acquire them.

Most used AI(Artificial Intelligence) technologies:

1.Natural Language Generation

Natural language generation (NLG) is the use of artificial intelligence (AI) programming to produce written or spoken narratives from a data set. NLG is related to human-to-machine and machine-to-human interaction, including computational linguistics, natural language processing (NLP) and natural language understanding (NLU).

2.Speech Recognition.

Speech recognition is an interdisciplinary subfield of computer science and computational linguistics that develops methodologies and technologies that enable the recognition and translation of spoken language into text by computers.

Speech Recognition is used to convert and transform human speech into a useful and comprehensive format for computer applications to process. The transcription and transformation of human language into useful formats is witnessed often nowadays and is growing rapidly. Companies like NICE, Nuance

Communications, OpenText and Verint Systems offer speech recognition services.

3.Machine Learning Platforms

Machine Learning is a sub discipline of computer science as well as an important branch of Artificial Intelligence. Its objective is to develop new techniques enabling computers to learn and hence become more intelligent. With the help of algorithms, APIs (application programming interface), development, training tools, big data and applications, machine learning platforms are becoming more popular. They are widely used for the purpose of categorization and prediction. Amazon, Fractal Analytics, Google, H2O AI, Microsoft, SAS, Skytree and Adtext are some of the companies selling machine learning platforms.
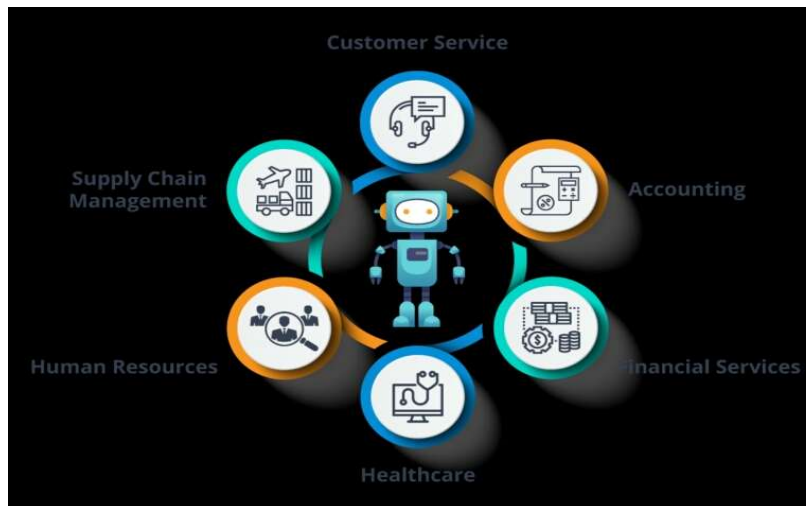
4.Virtual Agents

A virtual agent is a contact centre capability that uses a virtual character, created through computer generation, animation and artificial intelligence (AI), to serve customers via chatbot functionality.

5.Decision Management

Artificially Intelligent machines have the capability of introducing logic to AI systems in order to gear them up to be used for training, maintenance and

tuning. In order to add value to the business and profitable, decision management is already being used by organizations by incorporating it into their applications to propel and execute automated decision. Some companies that provide this service are Informatica, Advanced Systems Concepts, Maana, Pegasystems and UiPath.

6. AI Optimized Hardware

Owing to better and improved graphics as well as central processing units, devices are being structured and used to execute AI oriented tasks specifically. A prominent example of this is the AI optimized silicon chip which can be inserted into any portable device. Therefore, companies and organizations are investing greatly in AI to accelerate the next generation of applications. This technological service is offered by companies like Alluviate, Google, Cray, Intel, IB and Nvidia.

7.Robotic Process Automation

Robotic Process Automation refers to the functioning of corporate processes due to the mimicking human tasks and automate them. In this particular sphere, it is important to bear in mind that AI is not meant to replace humans, but to support and complement their skills and talent. Companies like Pega systems, Automation Anywhere, Blue Prism, UiPath and WorkFusion focus on this process.
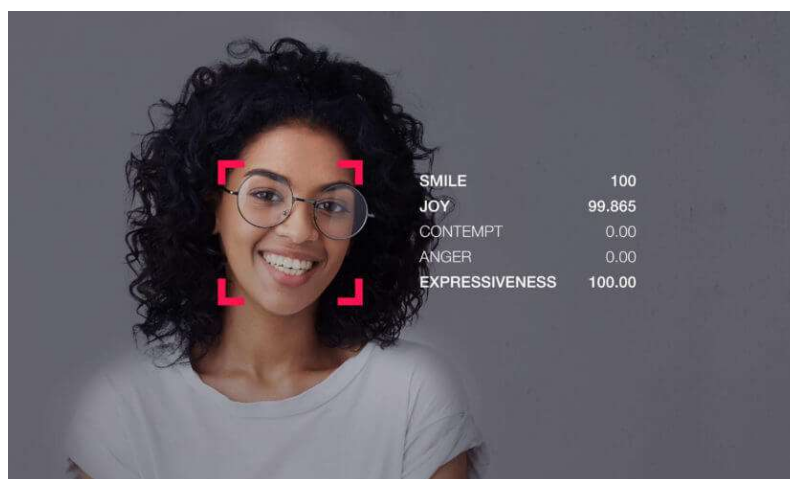
8.Cyber Defense

Cyber defense is a computer defense mechanism that aims to detect, prevent and mitigate attacks and threats to data and infrastructure of systems. Neural networks that are capable of processing sequences of inputs can be put to use along with machine learning techniques to create learning technologies in order to reveal suspicious user activity and detect cyber threats.

9.Content Creation

Although content is created by people working on videos, ads, blogs and white papers; brands like Hearst, USA Today ad CBS are using AI to generate content. Wordsmith is a popular tool created by Automated Insights, which applies NLP in order to generate news stories.

10.Emotion Recognition

This kind of AI technology enables emotions expressed by humans to be read and interpreted using advanced image processing or audio data processing. Law enforcers often use thus technology during interrogation. Some companies who use emotion recognition are Beyond Verbal, nViso and Affectiva.

Emotion recognition is the process of identifying human emotion. People vary widely in their accuracy at recognizing the emotions of others. Use of technology to help people with emotion recognition is a relatively nascent

research area. Generally, the technology works best if it uses multiple modalities in context.
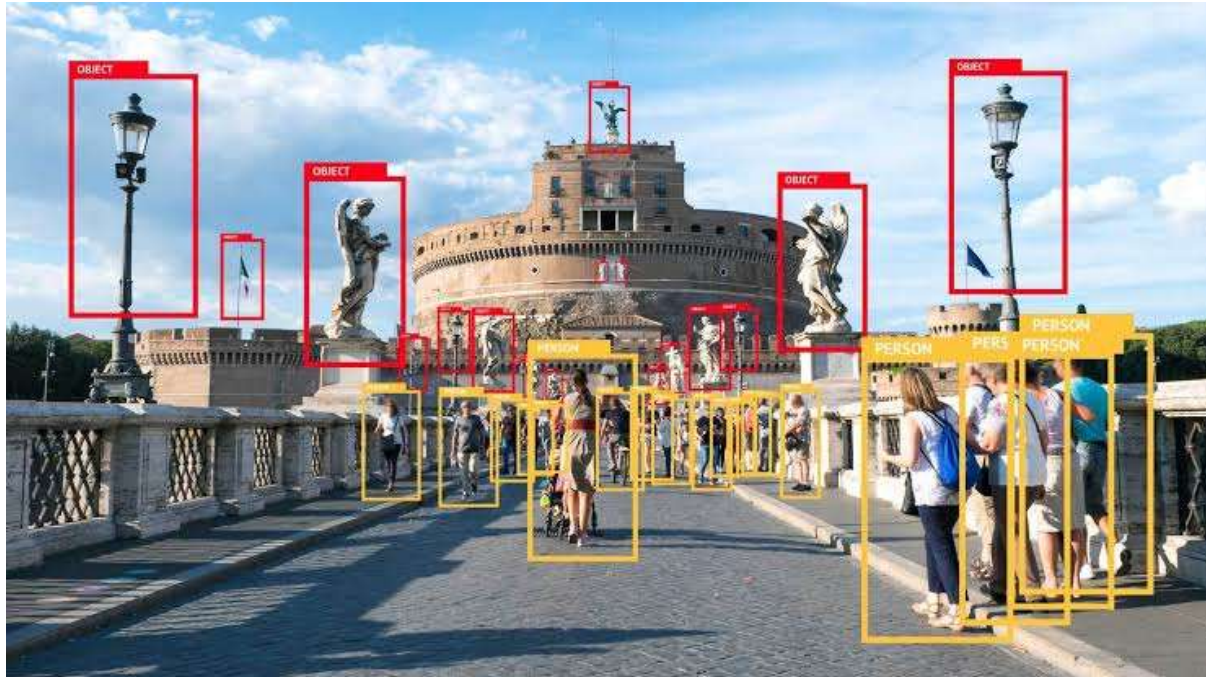
11.Image Recognition

Image recognition refers to the process of identifying and detecting a feature in a video or an image. It can help the process of image searches greatly as well as detect license plates, diagnose diseases and study personalities. Clarifai, SenseTime and GuGum's provide this technology service.

MISTRY MADANBHAI GANESHBHAI

20BCA44

BEST LAPTOP CONFIGURATION OF THE MONTH
NOVEMBER 2021

DELL XPS 13

CPU: Intel Core i7-1165G7

GPU: Intel Iris Xe Graphics

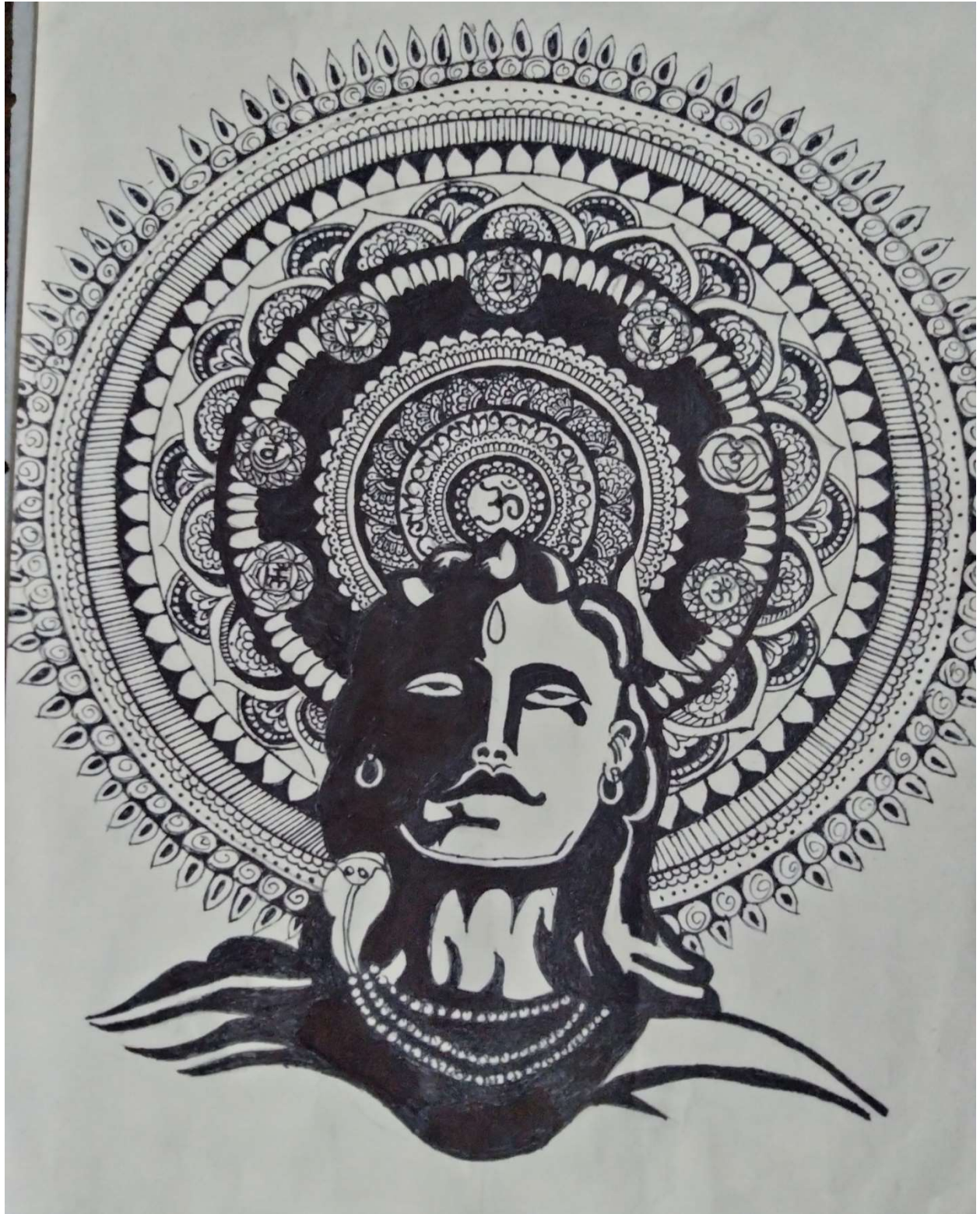**RAM:** 16GB

Storage: 512GB M.2 NVMe SSD

Display: 13.4-inch, 1200

Size: 11.6 x 7.8 x 0.6 inches

Weight: 2.8 pounds

RAIN MAHAMADSADIK ASINBHAI

19BCA123

MISTRY VRUTIKABEN KISHORKUMAR

20BCA47

MISTRY UNNATI BHARATBHAI

19BCA43