



AI-ML

INSHORTS

DEPARTMENT OF ARTIFICIAL INTELLIGENCE
AND MACHINE LEARNING ENGINEERING

VISION

To be a department focused on quality education and research in Artificial Intelligence & Machine Learning that prepares early professionals contributing to serve the society.

MISSION

- To provide an academic environment for the development of professionals in the field of Artificial Intelligence and Machine Learning.
- To cultivate research culture resulting in knowledge and development of the society.
- To enhance academic collaborations for better exposure.

Contents

1. Republic Day Celebrations.
2. NSS Cleanliness Drive.
3. AI Realm.
4. Faculty Achievements.

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In Association with



(Computer Engineering Student Association)



1. Republic Day Celebration

Republic day is celebrated to remember the historic moment when our nation became an independent republic country. As we all know that India got its independence on 15th August 1947 and the country didn't have its own constitution, instead India was governed by the laws implemented by the British. However after many deliberations and amendments, a committee headed by Dr. B.R Ambedkar submitted a draft of the Indian constitution, which was adopted on 26th November 1949 and officially came into effect on 26 January 1950.

The day was celebrated in our university with great eclat. The college ground was tastefully decorated with flowerpots and national flags. We were beside ourselves with joy. Loudspeakers were fitted. Everyone was feeling very patriotic and happy because it was a matter of great pride for all of us. After all, on this day the constitution of India came into force and our country became a republic. The NSS wing of Universal College spearheaded the arrangements of the event.



2.NSS Cleanliness Drive.

The NSS wing of Universal College Of Engineering had camped at Nagale Village, Maharashtra, India. They successfully implemented a Cleanliness Drive wherein they cleaned the village and educated the villagers of the importance of cleanliness.



4. AI REALM

ChatGPT: The Next Big Thing?

Recently, a new sensation powered by AI has taken the internet by storm in the past month. We've seen many versions of chatbots that provides 24x7 support but this one is something new and exciting. Recently ChatGPT-3 was released (successor of GPT-n series) and it just took 5 days to gain 1+ Million users. The trained version of NLP (Natural Language Processing) can convert texts and can be engaging like human interaction.

With the growing era of technology, users expect a lot from businesses/companies to get the solutions to their problems, and the chatbots which were being used among industries were not helpful enough to keep up the retention ratio. This creates a lot of gaps during interaction and sometimes becomes quite annoying. The change was much needed from a business perspective and also to decrease the dissatisfaction level of their users.



What is ChatGPT?

ChatGPT is an innovative move to build a connection between humans and a bot that connects so seamlessly that it almost feels like a natural conversation. Unlike traditional methods, this technology has been combined with AI algorithms to offer solutions to their users just like a normal messaging application.

ChatGPT was founded by OpenAI (an independent body), which aims to eliminate the problem of traditional chatbot methods which we were using throughout the platforms (such as banking, e-commerce, etc.) and works like a natural touch of a human being. It has been aimed to provide answers based on feelings, auto-detection of words, and provide outputs based on the inputs given by the users.

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**How Does ChatGPT Work?**

As discussed above, ChatGPT works with AI-trained models for providing an immersive experience to their users via textual forms. The models have been trained in such a way that it chats with human just like other humans and it continuously reinforces learning from the feedback received from human beings.

In other words, it is nothing more than a model that is being trained by humans and powered by AI, and based on the inputs and feedback, it shifts its pattern and responds accordingly. OpenAI stated in a statement that this model works on Reinforcement Learning from Human Feedback or RLHF that can reject inappropriate inputs, train themselves to provide the best solution and answer all the users' queries.

What are the Limitations of ChatGPT ?

The list of limitations is long when using ChatGPT, however, we have focused on providing concrete differences that can be fixed in the upcoming future. Have a look at some of the limitations below:

1. No real-time output
2. External support from any URL (for reference) is not allowed
3. The location-based facility is still missing
4. There are cases where ChatGPT was unable to answer basic riddles.

In most cases, it has been observed that ChatGPT is lagging behind and needs improvements. Till, that time, the company is targeting to work towards making their AI-based system more convenient.

How People are using ChatGPT?

It took 4 days for ChatGPT to hit a million user milestone which is comparatively high for many popular applications that we use today. For example, Instagram took near about 90 days to reach that milestone. The charm of this technology has forced people to try out things in different ways and the Internet is flooded with the things that people have been doing with this latest sensation. Let's look at some of them and analyze what else could be done with ChatGPT:

- Coding: The days are not far away when technologies like this would change the meaning of programming and people have been enjoying working on different languages using this tool.
- Poetry: Many users have posted updates where they have shared their experiences of writing poems using ChatGPT
- Song Writing: Since this tool works with AI-model and is capable of generating texts, it can easily write a song in a matter of time.
- Game/Movie Suggestion: It is also being considered as a replacement for the Google search engine which is actually a big statement but the wonders it is doing are still unimaginable and based on users' inputs, it can provide suggestions for food, movies, games, etc.



Can ChatGPT able to generate programming language code/program?

- Yes, ChatGPT can generate code in various programming languages such as Python, Java, C++, and more. However, it's important to note that the quality of the code generated may vary and it may not always be free of errors or optimal for the intended task.

Example :-

The screenshot shows a ChatGPT conversation. The user prompt is: "Write C++ code to check the given number is prime number or not." The AI response is: "Here's one way to implement it in C++:". Below the response is a code block containing C++ code for a prime number checker. The code includes a function `isPrime` and a `main` function that takes user input and prints the result. A "Copy code" button is visible next to the code block. At the bottom of the code block, there is a "Regenerate response" button.

```
c
#include <iostream>

using namespace std;

bool isPrime(int n) {
    if (n <= 1) return false;
    for (int i = 2; i < n; i++) {
        if (n % i == 0) return false;
    }
    return true;
}

int main() {
    int n;
    cout << "Enter a number: ";
    if (isPrime(n)) {
        cout << n << " is a prime number." << endl;
    } else {
        cout << n << " is not a prime number." << endl;
    }
    return 0;
}
```

Can ChatGPT able to generate Algorithms?

- Yes, GPT-3 can generate algorithms for various tasks such as sorting, searching, and mathematical operations. However, the quality and efficiency of the algorithms generated may vary, so it's important to validate and test them before use.



Example:-

AN Generate algorithm for linear search

Here's an implementation of the linear search algorithm in pseudocode:

```
lua
function linearSearch(A: array of items, x: item)
  for i = 0 to length(A) - 1
    if A[i] == x
      return i
    end if
  end for
  return -1
end function
```

This algorithm iterates through the array from the beginning to the end, and returns the index of the first occurrence of `x`. If `x` is not found, the function returns -1.

Conclusion

The real question by the end of this topic is – Can AI write blogs and replace Google or Human interactions? The answer is clearly NO, as of now because there are a lot of dependencies relying on human intelligence and this trending technology. Although this technology is a charm still the ratio of bugs and inaccurate answers is high in ChatGPT (Generative Pre-trained Transformer). On the other hand, Google works with a different mechanism and its metrics are based on websites. But the amount of fame that this technology has been getting is highly appreciable and we hope for brighter days in this technology.



5. FACULTY ACHIEVEMENTS

Subject Orientation by Ms. Priyanka Bhoir



The faculty of Computer Department, Ms. Priyanka Bhoir, had attended the orientation program of orientation program of the Distributed Computing (CSC801) and Distributed Computing Lab (CSL801) on 18th January 2023, held at Fr. C. Rodrigues Institute of Technology, Vashi, Maharashtra.



Subject Orientation by Ms. Jessica Dias



The faculty of Computer Department, Ms. Jessica Dias, had attended the orientation program of Applied Data Science of BE Sem VIII on 12th January 2023 held at Xavier Institute of Engineering., Mumbai, Maharashtra.



Subject Orientation by Ms. Priyanka Patil



The faculty of Computer Department, Ms. Priyanka Patil, had attended the orientation program of orientation program of the Distributed Computing (CSC801) and Distributed Computing Lab (CSL801) on 18th January 2023, held at Fr. C. Rodrigues Institute of Technology, Vashi, Maharashtra.

