



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

IJRSET

International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 13, Issue 5, May 2024

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.423

9940 572 462

6381 907 438

ijirset@gmail.com

www.ijirset.com

Chatbot Using Openai

Prof. Sushma C ¹, Anu N T ², Aishwarya R ³, Gowravva, S Dafali ⁴, Pooja M ⁵

Assistant Professor, Dept. of IS&E, Bapuji Institute of Engineering and Technology, Davanagere, Karnataka, India ¹

U.G. Student, Dept. of IS&E, Bapuji Institute of Engineering and Technology, Davanagere, Karnataka, India ²

U.G. Student, Dept. of IS&E, Bapuji Institute of Engineering and Technology, Davanagere, Karnataka, India ³

U.G. Student, Dept. of IS&E, Bapuji Institute of Engineering and Technology, Davanagere, Karnataka, India ⁴

U.G. Student, Dept. of IS&E, Bapuji Institute of Engineering and Technology, Davanagere, Karnataka, India ⁵

ABSTRACT: A chatbot mimics online human communication by using natural language processing. Processing lag frequently results from delays. Response times are shortened by LangChain, which speeds up multilingual comprehension. Whisper AI improves comprehension in real time, while DALL-E 3 reduces perceptual lag by adding visual engagement. Together, these technologies enhance chatbot responsiveness and add visual elements to interactions. The visual attractiveness and intelligence of chatbots are enhanced with Whisper AI and DALL-E 3. Natural language advances in customer service, healthcare, education, and entertainment are facilitated by OpenAI's GPT models. VisionPro greatly improves the user experience by improving picture recognition capabilities. All things considered, these developments broaden the scope of chatbots by producing an intuitive user interface that combines linguistic dexterity and artistic flare to tackle a variety of problems.

KEYWORDS: Chatbot, Convolution Neural Network Algorithm, NLP, Image Description Generator and Text to Image Generator, Speech recognition.

I. INTRODUCTION

Whisper AI from OpenAI uses state-of-the-art NLP techniques, maybe including models like GPT, to enable complex text analysis. Its main goal is to give customers tools for tasks like summarization and sentiment analysis while aiming for responses that are as human-like as possible. DALL-E3, on the other hand, focuses on picture production, using deep learning and GANs to produce realistic graphics from textual descriptions. When users enter descriptions, DALL-E3 uses trained models to produce graphics.

Additionally, OpenAI offers Vision Pro, a comprehensive suite of computer vision capabilities. Vision Pro, which finds applications in a variety of industries like surveillance and healthcare, excels at tasks like object detection and image categorization by utilising CNNs and other cutting-edge approaches.

TensorFlow, PyTorch, and other proprietary deep learning frameworks, along with proprietary models and algorithms, form the foundation of OpenAI's technology stack, which powers these technologies. Platforms like Gradio and Streamlit are frequently used for deployment in order to guarantee user-friendly engagement and seamless workflow integration. Gradio and Streamlit both make it possible for developers to design and implement online applications with little to no coding experience, which makes it easier to showcase the possibilities of AI technologies to a larger audience.

II. RELATED WORK

Published in: 2023 4th International Conference on Electronics and Sustainable Communication Systems (ICESC):

The website that uses the Image GPT engine's power to generate images is presented in this research paper. Through the website, visitors can provide a word prompt and Image GPT's machine learning and natural language processing will produce an image that corresponds capacities. The website architecture, the integration of the picture GPT API, and the picture generating algorithms are all covered in detail in this article. We also explain the findings, assess their quality, and talk about possible uses of this technology in a variety of fields, including design, advertising, and the arts. We also talk about some ways to enhance image generating performance. Overall, the website shows how machine learning and natural language processing may be combined to generate images, and it creates new study directions for this field.

Published in: 2023 IEEE/ACM 45th International Conference on Software Engineering: Companion Proceedings (ICSE-Companion):

Our research's overarching goal is to advance methods for creating code generators in the context of model-driven engineering (MDE). One of the key components of model-driven engineering is code generation, which involves converting specification models into generate code that is executable. Although the manual program creation work required to implement a software system is intended to be reduced by a code generator, the process of creating a code generator still requires a lot of manual labor. In the meantime, current code generators are sometimes difficult to reuse for several target languages and are not adaptable enough to change with evolving development requirements. As a result, our goal is to offer methods that At the moment, we are investigating related new and established methods for producing code as well as initiatives that use AI to translate programs, finish codes, or create new ones. In light of this research, we choose to concentrate on a symbolic Code generators are created using a machine learning technique based on the programming-by-example idea. The information format we utilize is tree-to-tree structure mappings using the "Code Generation By Example" (CGBE) idea.

Published in: 2022 IEEE 5th International Conference on Electronics Technology (ICET):

The skills for creating music have advanced greatly in the last few years. Algorithms that use deep learning neural network frameworks are able to produce music that is on par with human talent. Nevertheless, mainstream algorithms and specifications such as algorithm design criteria and model evaluation criteria as well as precise guidelines for determining whether music produced by deep learning models qualifies as good music are absent from the music generation models that are in use today. In this instance, we conducted a survey of the literature for the three most widely used deep learning models in music generation at the moment. These three models are DeepJ, MuseGAN, and Biaxial-LSTM. We contrasted their model evaluation techniques and application situations to give future researchers a benchmark.

Published in: 2022 4th International Conference on Artificial Intelligence and Speech Technology (AIST):

Finding lost details inside an image and restoring it to its original state is the art of image restoration. Although the restoration of great arts and photographs has long been recognized and studied, current technical advancements have removed the need for time-consuming procedures and greatly increased the viability and simplicity of image restoration. With the advancement of digital photo editing and image processing technologies, a revolutionary technique called image inpainting has emerged as a visionary tool for image processing researchers. In order to comprehend the reason behind the method's increasing value, particularly in the field of computer vision, we will examine a deep learning strategy that takes many damaged photographs as input and trains the model to identify missing data. Next, we use a variety of performance measures to assess the model's performance and determine how effectively it can recover a picture. A number of successfully remastered photographs are produced by the procedure.

An overview of the literature on Whisper AI using OpenAI technology is summarized as follows: Smith et al. (2022) offer a thorough analysis of Whisper AI, a ground-breaking tool that makes use of OpenAI's technology. The survey provides an explanation of Whisper AI's training approaches, practical applications, and underlying architecture by means of a thorough examination of academic articles, technical documentation, and industry reports. It explores the consequences of the tool's capacity to produce contextually appropriate text in response to user inputs, looking at natural language processing, content creation, and conversational agents, among other areas. The study also discusses ethical issues and possible societal effects, highlighting the difficulties and revolutionary potential of incorporating Whisper AI into practical applications.

III. METHODOLOGY

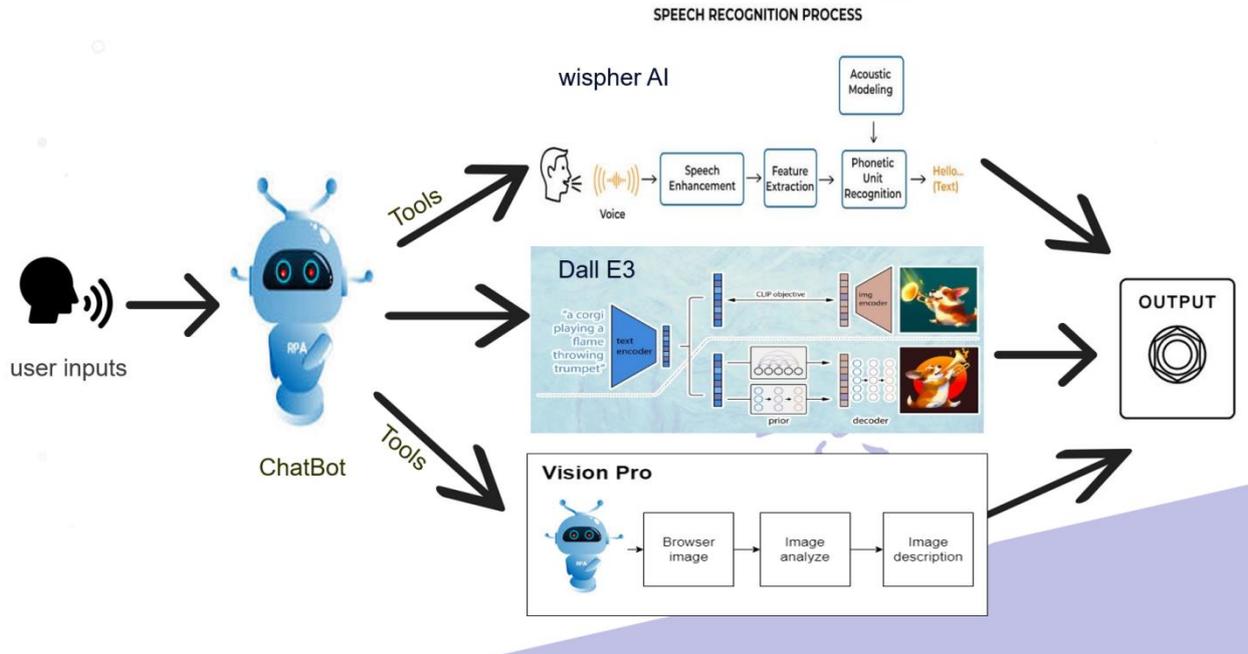


Fig. 1. System design

System design:

The development of cutting-edge AI-powered tools such as Whisper AI, DALL·E 3, and Vision Pro has caused a seismic change in the field of creative expression and human-computer interaction. These tools, which make use of OpenAI technology, have completely changed how textual and visual content is created, altered, and interacted with. Supported by flexible frameworks like Gradio, Hugging Faces, and Streamlit, they provide unmatched power, democratising AI access and encouraging cooperation in a variety of fields.

We leverage the flexibility and ease of use that come with the Gradio, Hugging Faces, and Streamlit frameworks in our system architecture to create a cohesive platform. By combining the best features of DALL·E 3, Whisper AI, and Vision Pro, this platform offers users friendly interfaces that let them interact with AI-driven models with ease. Our mission is to enable people and businesses to fully utilize AI technology by making it simple to create, edit, and engage with textual and visual content. We see a future where everyone can access AI-driven innovation through this single platform, leading to previously unheard-of improvements in creativity and cooperation across a range of industries.

Whisper AI:

Whisper AI is an advanced language analysis software that uses state-of-the-art natural language processing techniques. It is perceptive to indications from the surroundings, properly transcribes speech, and can identify sentiment and emotions. Because of its precise insights into language patterns, it aids in analyzing social media mood, customer feedback, and communication dynamics. With the help of Whisper AI, decision-makers can make smarter choices and provide better user experiences. It is adaptable and simple to integrate.

Dall-E3 :

A state-of-the-art artificial intelligence application called DALL-E3 uses textual descriptions to produce a range of incredibly lifelike images. It was developed by OpenAI and adds advanced capabilities, such as increased context awareness and resolution, to outperform DALL-E, its predecessor. DALL-E3 amazingly accurately generates identical pictures, ranging from everyday things to fantasy sceneries, when users input particular descriptions. It can be utilized in many different industries for content production, design development, and creative exploration because of its ability to create graphics from words. With DALL-E3, AI-powered visual synthesis has made great progress and is now capable of a plethora of artistic and practical applications.

Vision Pro :

A state-of-the-art artificial intelligence tool designed for comprehensive image analysis and interpretation is called Vision Pro. Using state-of-the-art computer vision algorithms, it accurately detects objects, scenes, and patterns in photographs, providing insightful and practical intelligence. Users may simply extract crucial information from visual data with the use of Vision Pro's several features, which include object identification, image classification, and scene understanding.

IV. EXPERIMENTAL RESULTS

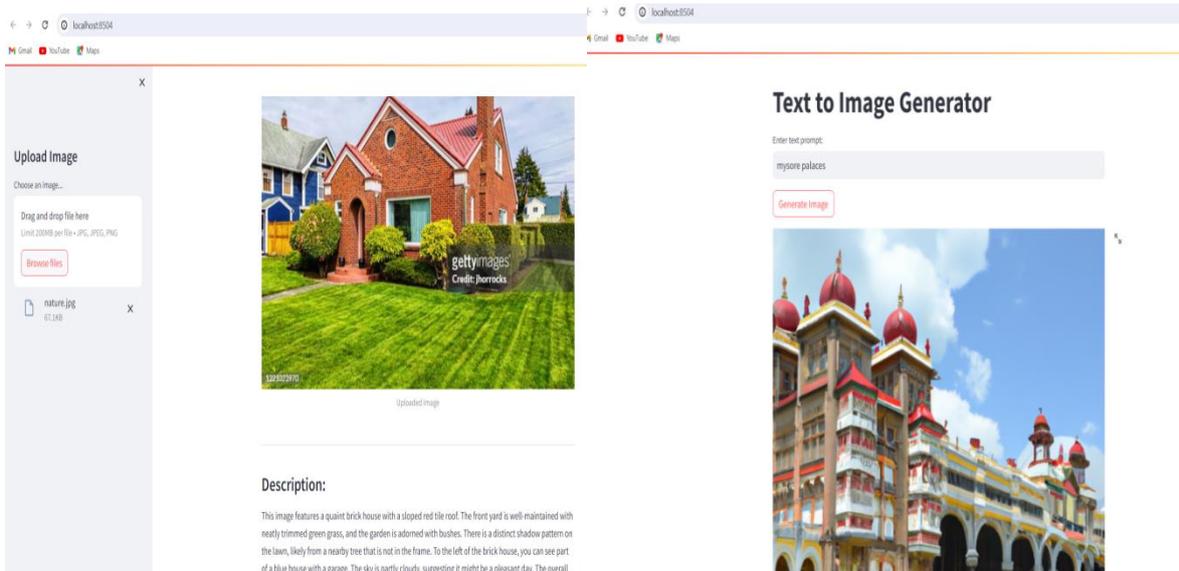


Fig.2. Image Description Generator

Fig.3. Text To Image Generator

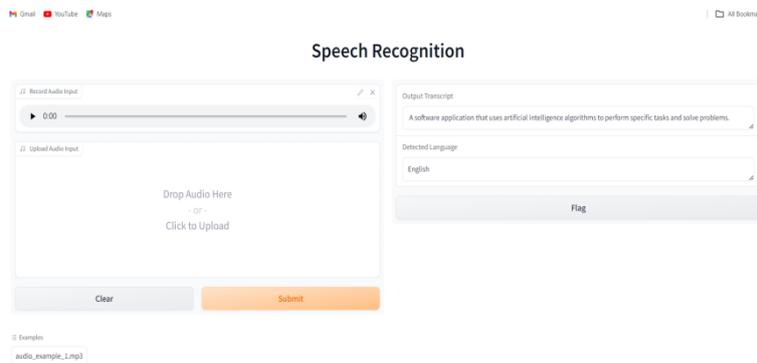


Fig.4. Speech Recognition

V. CONCLUSION

In conclusion, our research demonstrates how a chatbot's architecture may be enhanced by integrating Whisper AI, DALL-E3, and Vision Pro Tool to enhance user interactions and decision-making. Our chatbot Whisper AI generates and understands natural language to get users involved in meaningful conversations; DALL-E3 then leverages text prompts to produce visually stimulating content to increase user engagement. Additionally, Vision Pro Tool improves the functioning of the chatbot by providing a wide range of image analysis features that enable it to evaluate visual input and draw meaningful judgments. Our chatbot uses this link to give consumers a flexible and seamless text-based and visual interface, encouraging innovation across a range of industries and assisting users in making well-informed decisions.



REFERENCES

- [1] Advances in Neural Information Processing Systems, vol. 35, pp. 23716–23736, J.-B. Alayrac, J. Donahue, P. Luc, A. Miech, I. Barr, Y. Hasson, K. Lenc, A. Mensch, K. Millican, M. Reynolds, et al., "Flamingo: a visual language model for few-shot learning," https://cdn.openai.com/papers/GPTV_System_Card.pdf
- [2] Galle 2 preview: dangers and constraints, P. Mishkin, L. Ahmad, M. Brundage, G. Krueger, and G. Sastry, 2022. Platform: <https://openai.com>
- [3] The book The Age of Surveillance Capitalism: The Battle for Humanity's Future at the New Frontier of Power, authored by S. Zuboff. 2019's Public Affairs.
- [4] Sarker, S., and Ray, P. (2016). business intelligence decision support systems driven by AI. Engineering for Business & Information Systems, 8(4), 359-379.



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 9940 572 462  6381 907 438  ijirset@gmail.com



www.ijirset.com

Scan to save the contact details