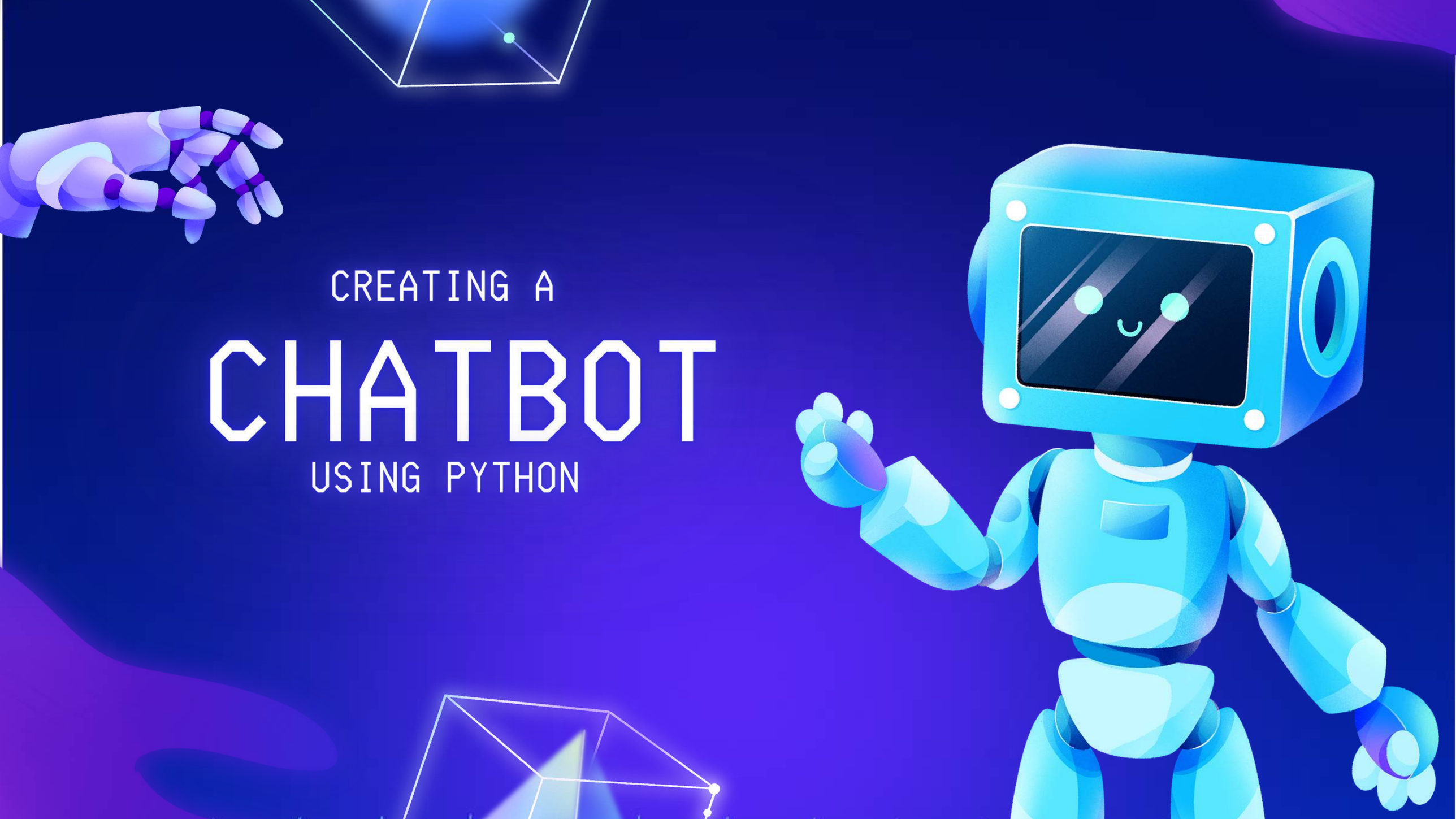
CREATING A

CHATBOT

USING PYTHON



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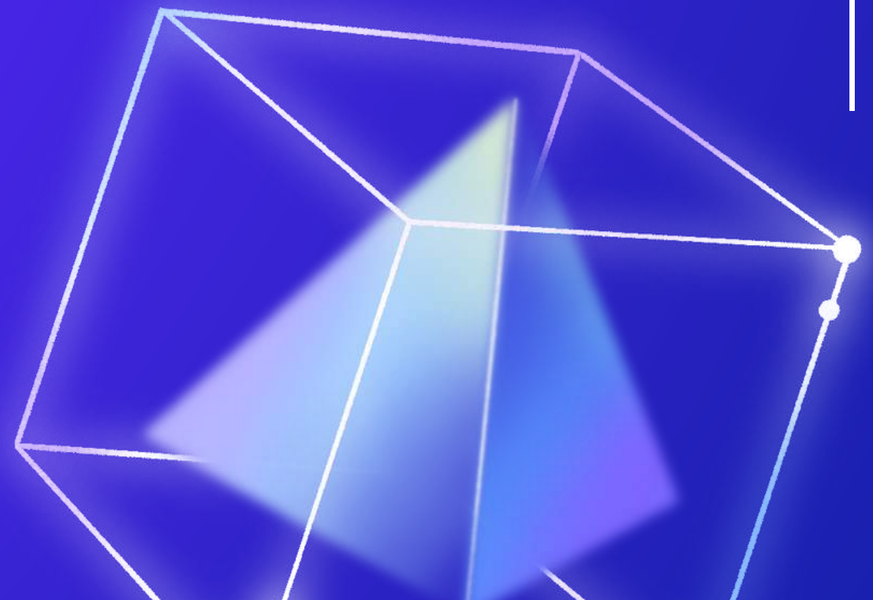
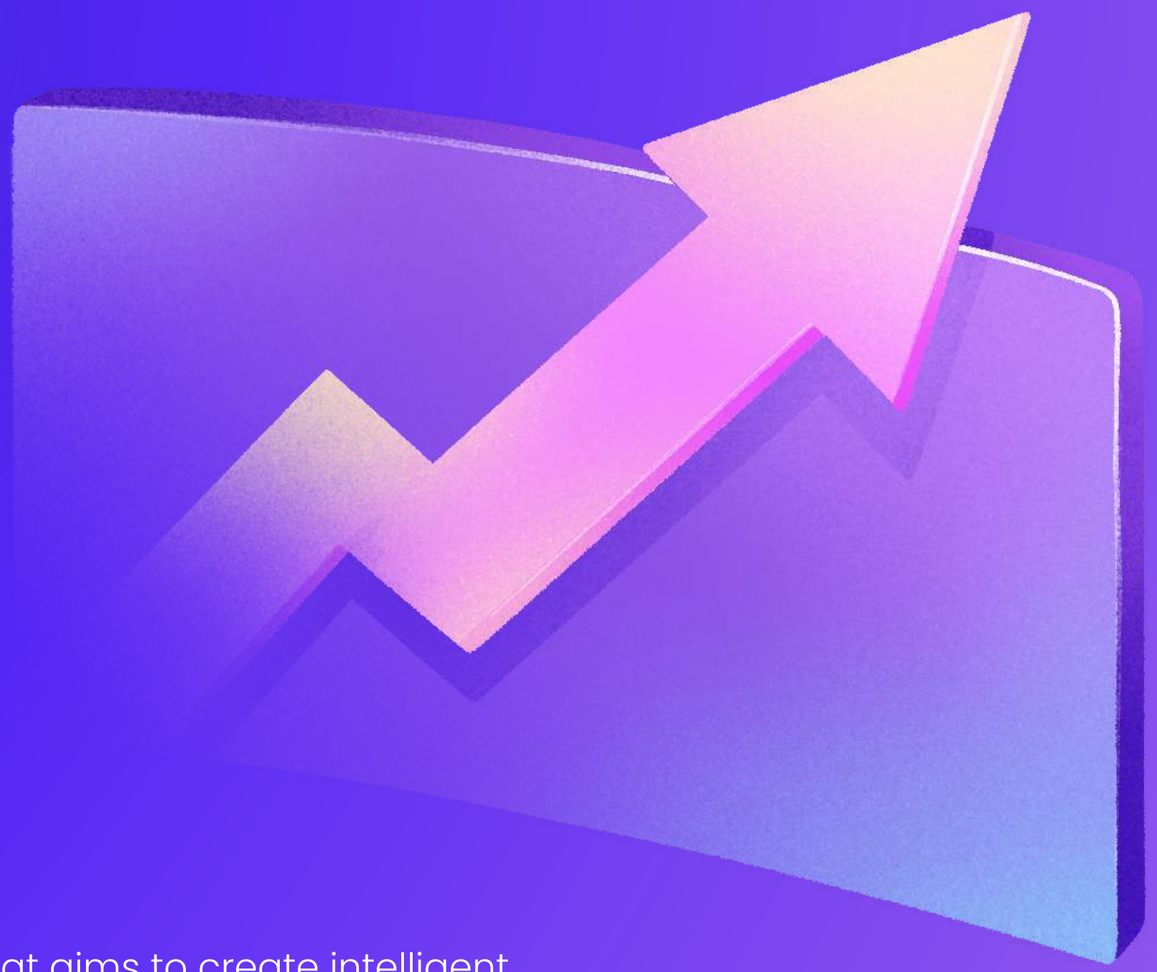


INTRODUCTION

Chatbots, also known as conversational agents, are designed with the help of AI (Artificial Intelligence) software. They simulate a conversation (or a chat) with users in a natural language via messaging applications, website.
Chatbots represent a potential shift in how people interact with data and services online. While there is currently a surge of interest in chatbot design and development, we lack knowledge about why people use chatbots.



Artificial Intelligence

Artificial intelligence is a branch of computer science that aims to create intelligent machines. It has become an essential part of the technology industry. Research associated with artificial intelligence is highly technical and specialized.

MACHINE LEARNING

Automation

Chatbot, also known as chatterbot is a software application mainly employed by businesses to initiate a live conversation through text or speech-to-text instead of calling or talking to the human agent through the phone.

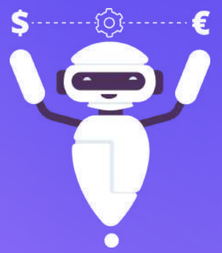
Algorithm

Chat Routing Algorithms helps you to choose different modes in which the agents will receive the chats.
The chatbot algorithm learns the data from past conversations and understands the user intent. Chatbots are trained using predefined responses and understand human language through natural language processing. The machine learning algorithms in AI chatbots allow them to mimic human conversation and act like a real-life agent.

TESTING AND REFINING THE CHATBOT

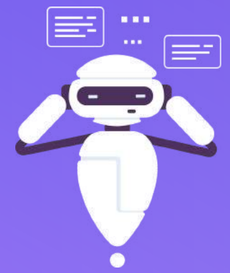
UNIT TESTING

Learn how to test individual chatbot components to ensure they work as expected.



USER TESTING

Find out how to gather feedback from users to improve your chatbot's user experience.



CONTINUOUS REFINEMENT

Discover strategies for ongoing refinement and optimization of your chatbot based on user feedback and analytics.

PROJECT SCOPE

CONTINUOUS LEARNING

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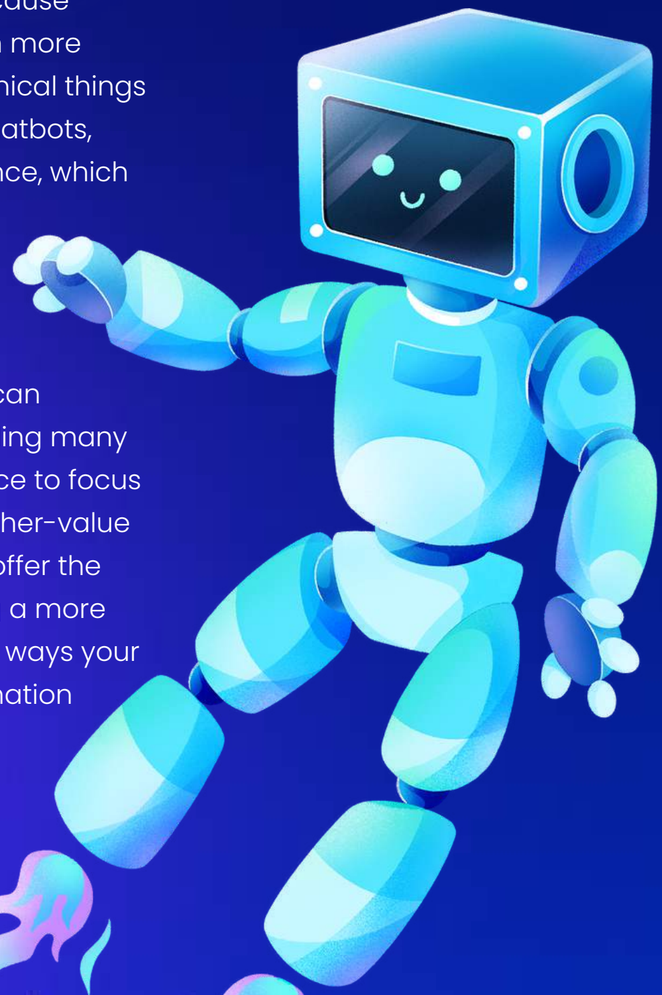
INCREASED EFFICIENCY

Chatbots improve employee productivity because human employees get more time to focus on more critical and complex operations, not the technical things that can be handled by the chatbots. With chatbots, clients are getting a better shopping experience, which ultimately leads to more sales.

AUTOMATION

Chatbot technology using conversational AI can augment your customer experience by handling many routine inquiries, leaving your human workforce to focus on the more challenging interactions and higher-value work. In addition, chatbot algorithms always offer the opportunity for human intervention, providing a more positive customer experience. Here are some ways your organization can benefit from chatbot automation using RPA.



TECHNICAL ARCHITECTURE

Choosing the correct architecture depends on what type of domain the chatbot will have. For example, you might ask a chatbot something and the chatbot replies to that. Maybe in mid-conversation, you leave the conversation, only to pick the conversation up later. Based on the type of chatbot you choose to build, the chatbot may or may not save the conversation history. For narrow domains a pattern matching architecture would be the ideal choice. However, for chatbots that deal with multiple domains or multiple services, broader domain. In these cases, sophisticated, state-of-the-art neural network architectures, such as Long Short-Term Memory (LSTMs) and reinforcement learning agents are your best bet. Due to the varying nature of chatbot usage, the architecture will change upon the learning needs of the chatbot.

AUTOMATION PROCESS

01

E xplore popular Python frameworks for building chatbots, such as ChatterBot and Rasa

02

Learn how to train your chatbot to understand user intents and respond accordingly using Natural Language Understanding (NLU)

03

Discover techniques for creating dynamic and context-aware conversations with your chatbot.

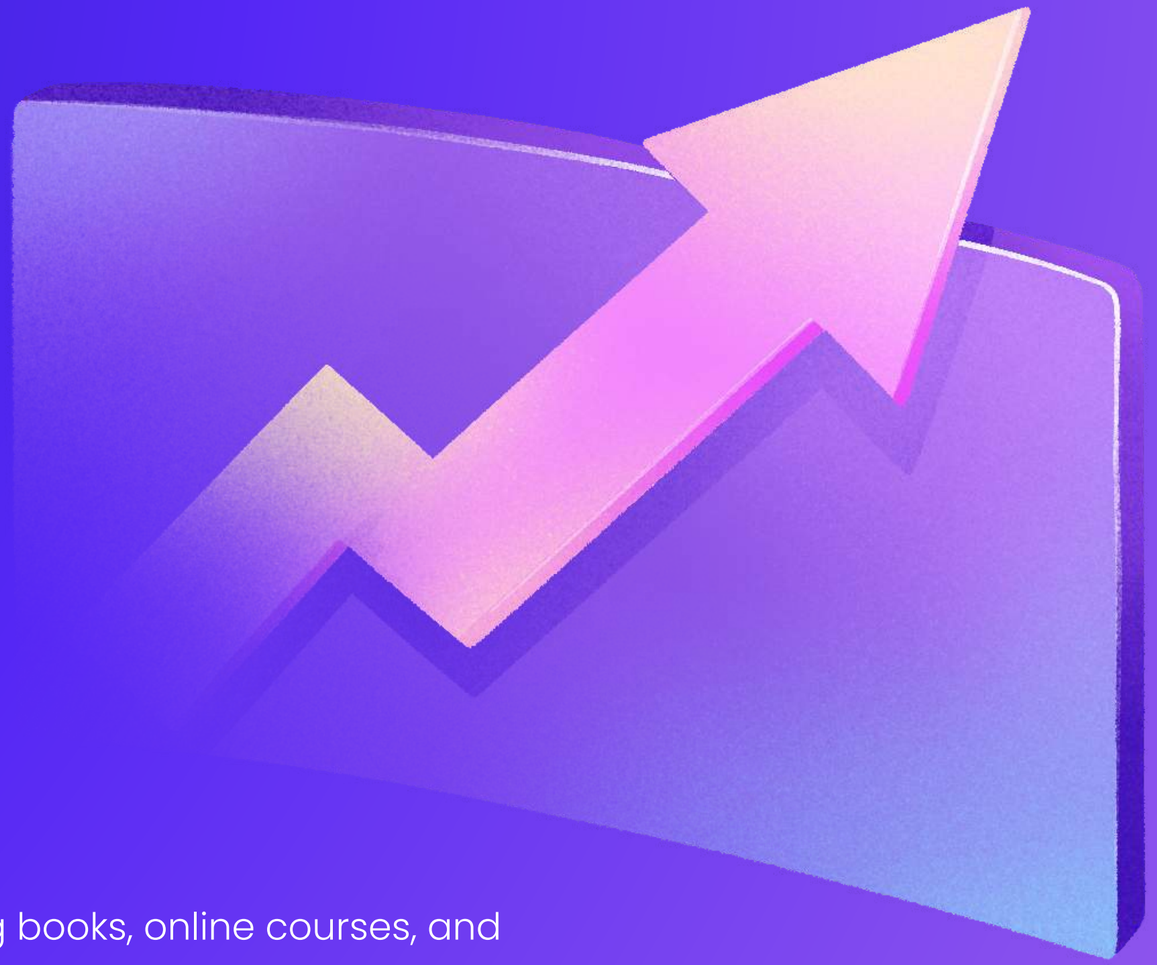
04

Discover how to gather valuable data and insights from user interactions with your chatbot using analytics tools.

CONCLUSION

Summary

Chatbots are conversational tools that perform routine tasks efficiently. People like them because they help them get through those tasks quickly so they can focus their attention on high-level, strategic, and engaging activities that require human capabilities that cannot be replicated by machines.



Additional Resources

Provide recommendations for further learning, including books, online courses, and chatbot development communities

THANK YOU!