Artificial Intelligence Chatbot : Fall 2023
Talk To Albert Einstein

By Ester Gadelha and Najmah Abdur-Rahman

Welcome to Talk to Albert Einstein,

Have you ever wanted to talk to your favorite past scientist and ask them questions about their work and career? Well, now it's possible thanks to Artificial Intelligence.

In this project, mechanical engineer major Najmah Abdur-Rahman and nuclear engineer major Ester Gadelha combined their passion for science to create a platform where you can ask Albert Einstein questions. This was done using an AI Chatbot that acts as if it is Albert Einstein itself. The chatbox can be interacted with as if a human being answering questions about Albert Einstein's life and theories; such as theory of relativity and photoelectric effect. The main goal through this project is to educate the user on Albert Einstein by allowing them to ask him questions.

To begin the project; we learned more about what is Artificial Intelligence and how to deconstruct chatbots in order to create a DialogFlow based on Q&A. In order to provide a large selection of topics and questions, we strategically created an excel spreadsheet with six different topics: Personal Biography, Professional Accomplishments, Mathematics, Nuclear Contributions, Physics, Theories. Each topic had multiple questions and relevant answers to cover possible various questions a user could ask. This information was fed into the DialogFlow platform which then generated the AI Chatbox. We also utilized the intent feature on the platform. This feature categorizes an end-user's intention for one conversation turn. For each agent, you define many intents, where your combined intents can handle a complete conversation. When an end-user writes or says something, referred to as an end-user expression, Dialogflow matches the end-user expression to the best intent in your agent. We made changes to this feature so that the user could ask various questions that differed from the questions we imputed into the platform and still receive a logical answer.

The most challenging part of this project was to put all the pieces together when creating the Diagflow. We had to learn how to enable the interface of the Nvolve website to upload the chatbot for our users to be able to play with our project.

Access our Chatbot::
https://bot.dialogflow.com/9755240e-3b45-4c43-9c41-b416b99c0068