chatbot-2

Interactive Chatbot with Elasticsearch and Hugging Face

Presented by [Dr. Kolapo Adedipe, PhD, OCP, CC, ALX SE Grad]

Introduction

chatbot-2 is an advanced interactive chatbot application built using Streamlit. It leverages Elasticsearch for document retrieval and Hugging Face transformers for text generation. Users can engage in seamless conversations where the chatbot retrieves relevant information from a vast database of documents and generates accurate and insightful responses.

Features

1. **Multimodal RAG**: Combines document retrieval and response generation.

2. **Elasticsearch**: Retrieves relevant documents based on user queries.

3. **Hugging Face**: Generates responses using GPT-2 or other models.

4. **Streamlit Interface**: Provides a simple and interactive web interface.

Technology Stack

- **Streamlit**: For creating the web app interface.

- **Elasticsearch**: For connecting to and querying the Elasticsearch server.

- **Hugging Face Transformers**: For using pre-trained models for text generation.

- **Python**: The programming language used for development.

Installation and Usage

1. **Clone the repository**: `git clone https://github.com/yourusername/chatbot-2.git`

2. **Install dependencies**: `pip install -r requirements.txt`

3. **Run the app**: `streamlit run app.py`

4. **Open in browser**: Go to `http://localhost:8501` and interact with the chatbot.

Use Cases

1. **Customer Support**: Provide instant responses to customer queries.

2. **Educational Assistance**: Help students with their questions.

3. **Information Retrieval**: Quickly access relevant information from large datasets.

Conclusion

chatbot-2 demonstrates the powerful combination of Elasticsearch for search capabilities and Hugging Face transformers for AI-driven responses. It provides a robust and user-friendly platform for various applications requiring intelligent conversational agents.