

Hackathon: ElevenLabs AI Audio Challenge

Team: Tech
explorer

AI Voice Advisor

This project delivers AI-driven financial advice via speech-to-text and voice generation, enabling users to receive and hear concise responses from audio queries



lab
lab.
ai

INTRODUCTION

Title:
AI-Powered Financial Advisor with Voice integration

Team Members:

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SHORT DESCRIPTION

This project integrated AI-powered financial advising with speech-to-text and voice generation. User can submit audio queries, receive concise financial advice, and hear the response through an audio output, making the experience interactive and accessible.





LONG DESCRIPTION



Our Project is designed to provide users with personalized financial advice through an intuitive platform. By leveraging AI technologies such as OpenAI's GPT-3.5 and Whisper models, users can submit audio queries, which are transcribed, analyzed, and answered with concise responses. The use of Eleven Lab's text-to-speech system delivers clear and personalized audio feedback. Our mission is to make financial advice simple and accessible through a seamless voice interaction experience.



PROBLEM STATEMENT

The Challenge:

Many users find financial information difficult to navigate, and not everyone is comfortable with text-based queries. Providing accessible financial advice in an interactive, voice-based manner can enhance user engagement and comprehension.





Technologies Used

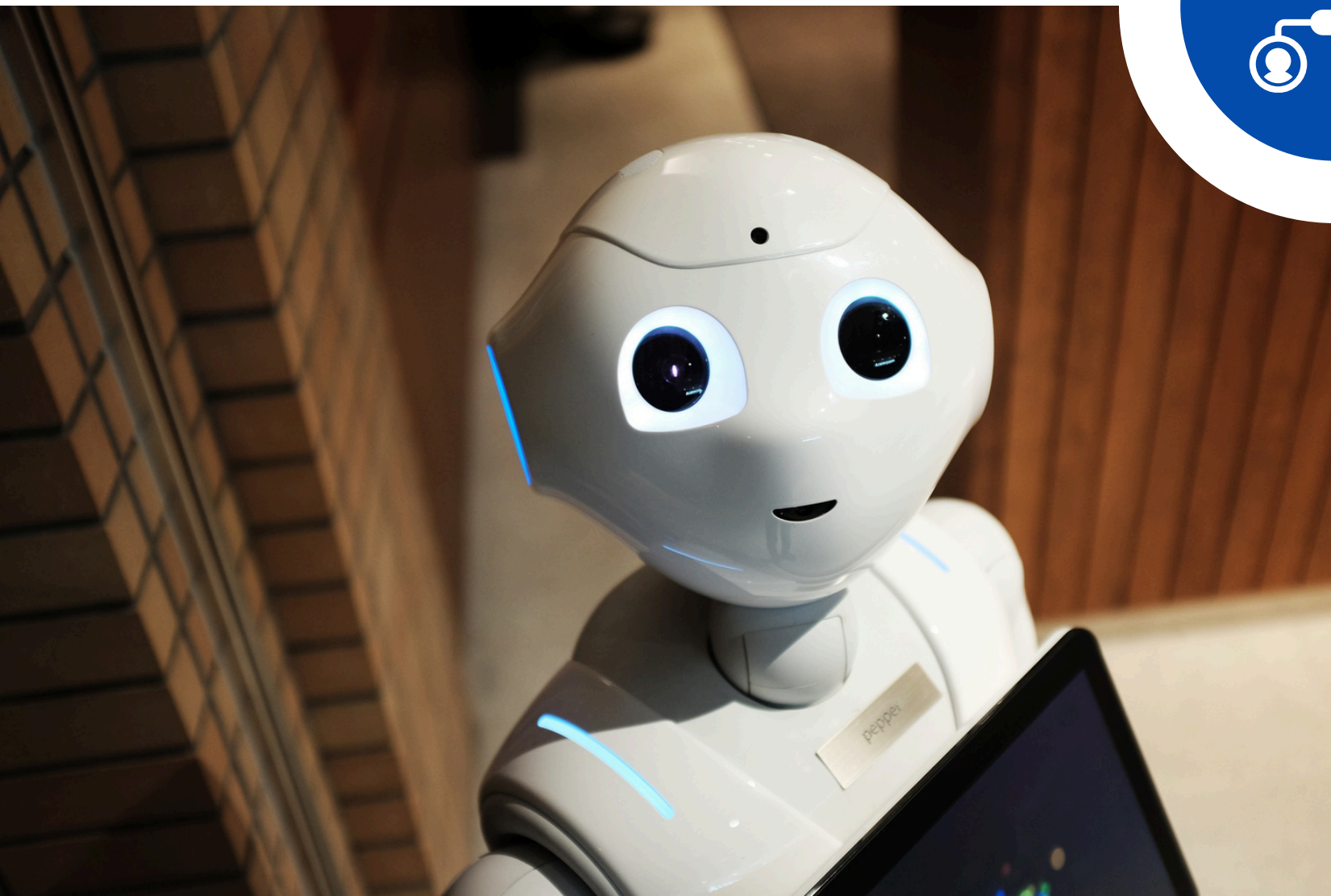
- **NATURAL LANGUAGE PROCESSING (NLP):** OPENAI GPT-3.5 FOR TEXT ANALYSIS AND RESPONSE GENERATION.
- **SPEECH RECOGNITION:** OPENAI WHISPER FOR AUDIO TRANSCRIPTION.
- **TEXT-TO-SPEECH (TTS):** ELEVEN LABS FOR CONVERTING RESPONSES INTO NATURAL-SOUNDING SPEECH.
- **DATA HANDLING:** PANDAS FOR MANAGING QUESTION EMBEDDINGS AND RESPONSES.
- **COSINE SIMILARITY:** USED FOR MATCHING USER QUERIES WITH THE BEST POSSIBLE RESPONSE BASED ON PREVIOUS DATA.

Technology Stack

- **PROGRAMMING LANGUAGE:** PYTHON
- **API INTEGRATION:** OPENAI FOR NLP, ELEVEN LABS API FOR TTS
- **LIBRARIES USED:** GRADIO, PANDAS, NUMPY, REQUESTS
- **MACHINE LEARNING MODELS:** OPENAI GPT-3.5, WHISPER, ADA EMBEDDING
- **UI FRAMEWORK:** GRADIO FOR USER INTERFACE
- **STORAGE:** CSV FOR EMBEDDING STORAGE AND MANAGEMENT



USE CASES



Financial Planning:

Personalized financial advice based on voice queries.

Interactive Learning:

Users can ask finance-related questions and receive detailed responses.

Accessibility:

ideal for visually impaired users who prefer voice interaction



FUTURE ENHANCEMENTS

Multi-Language Support

Expanding to non-English speaking users.

Enhanced user interface:

Improving the UI for a more visually appealing experience.

Real-Time Advice

Integrating live financial data to offer dynamic advice




Firefox

Gradio

127.0.0.1:7860

Image



Audio

Record

Built-in Audio Anal...

Conversation Transcript

Audio

Run

Use via API - Built with Gradio