

# WanderVoice

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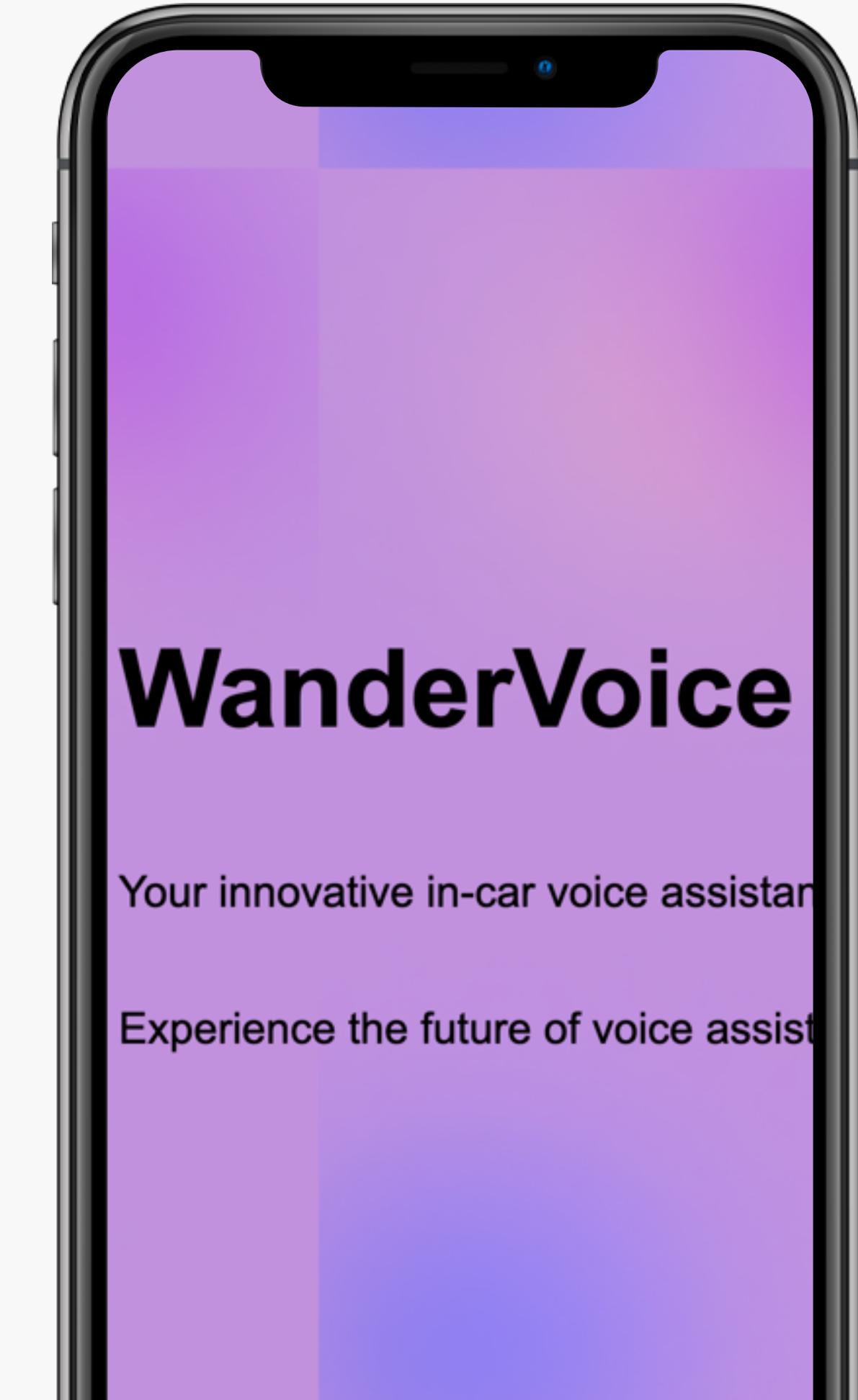


WanderVoice

Your innovative in-car voice assistant  
Experience the future of voice assistance

# Introduction to WanderVoice

- Innovative in-car AI voice assistant designed to enhance driving experience.
- Provides real-time communication services and recommendations, extending beyond traditional navigation.
- Built on Amazon Web Services for robust, scalable service delivery.



**WanderVoice**

Functions Support Log Out

**TRAVEL**

**Tour Guide**

**Navigate the Road of Knowledge:**  
**Your In-Car Companion for**  
**Instant Answers and**  
**Conversations.**

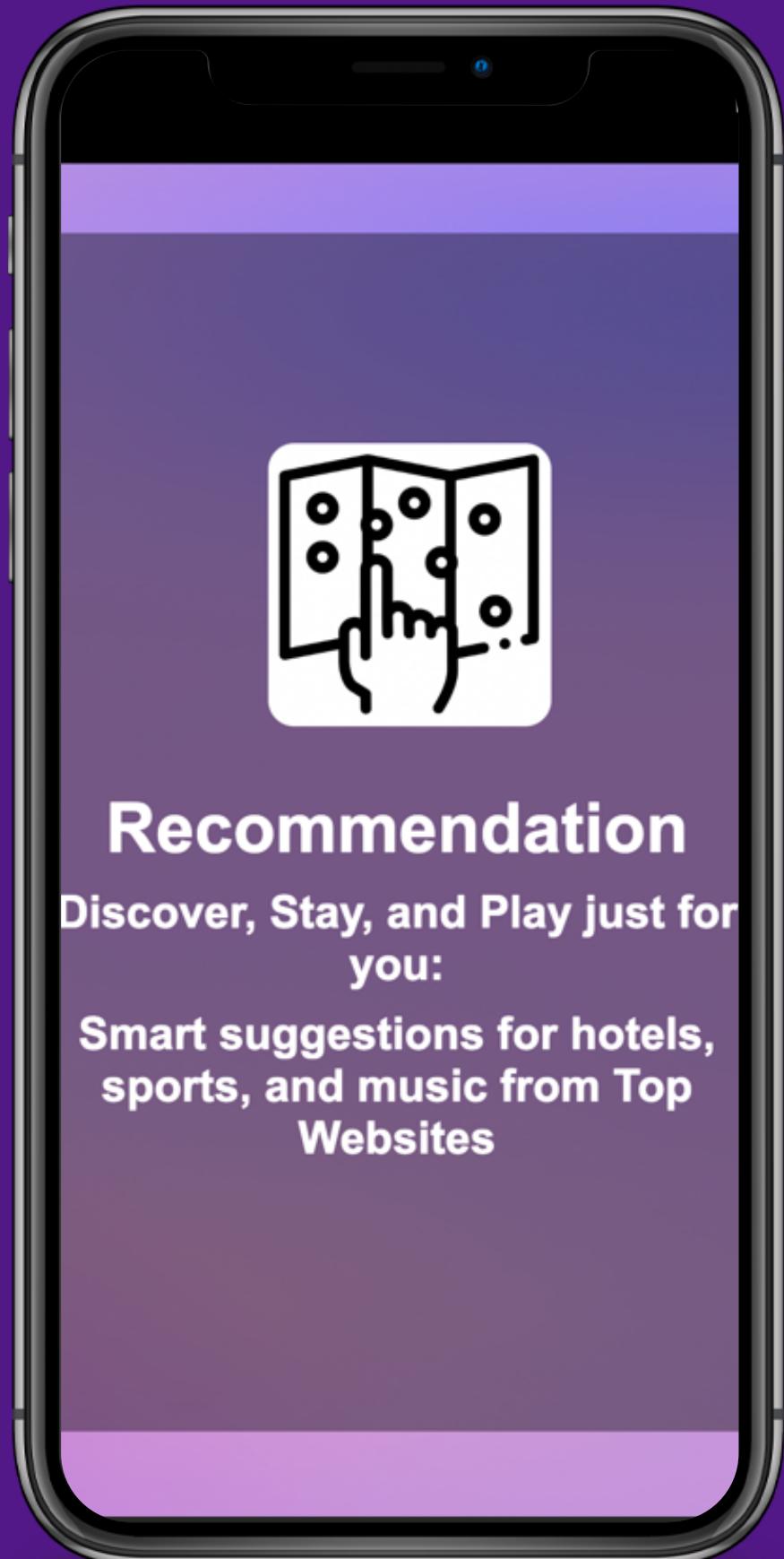
**Recommendation**

**Discover, Stay, and Play just for**  
**you:**  
**Smart suggestions for hotels,**  
**sports, and music from Top**  
**Websites**

# FUNCTIONALITY

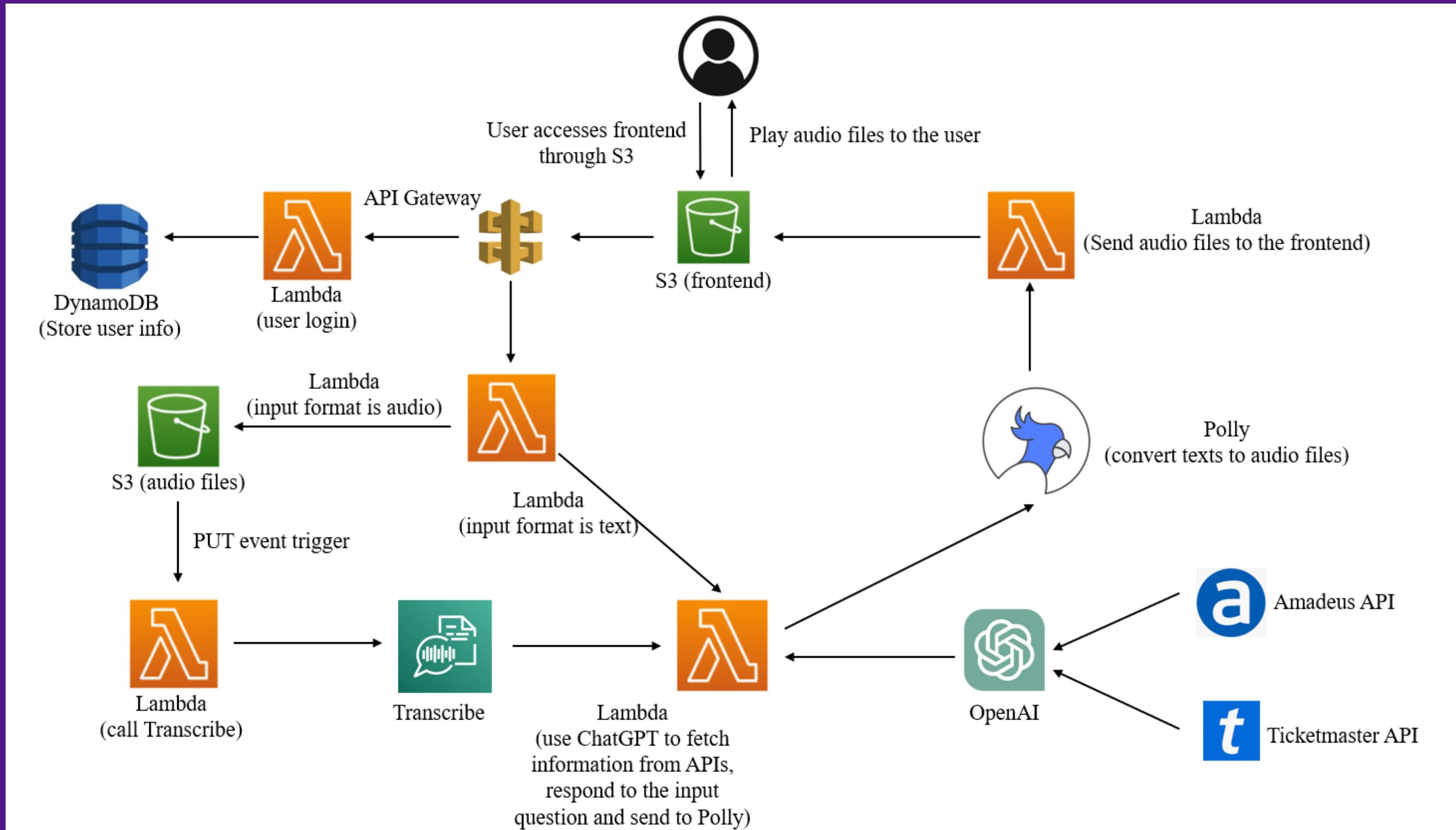
- Tour Guide Chatbot
- Real-Time Recommendation

# CHALLENGES

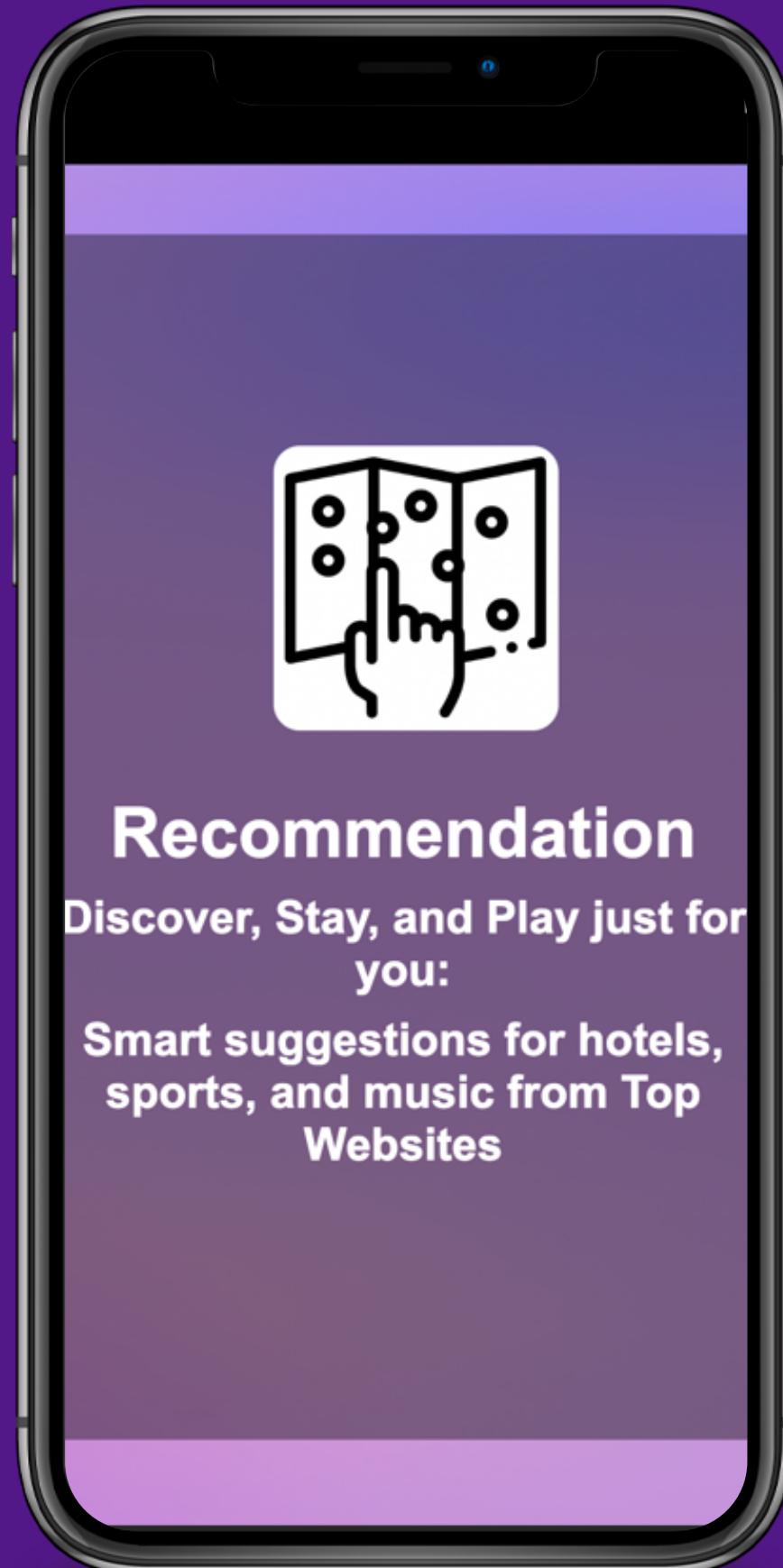


- Text/voice input and output
- Real-time search engine
- Domain knowledge ChatBot
- Front-end design

# ARCHITECTURE

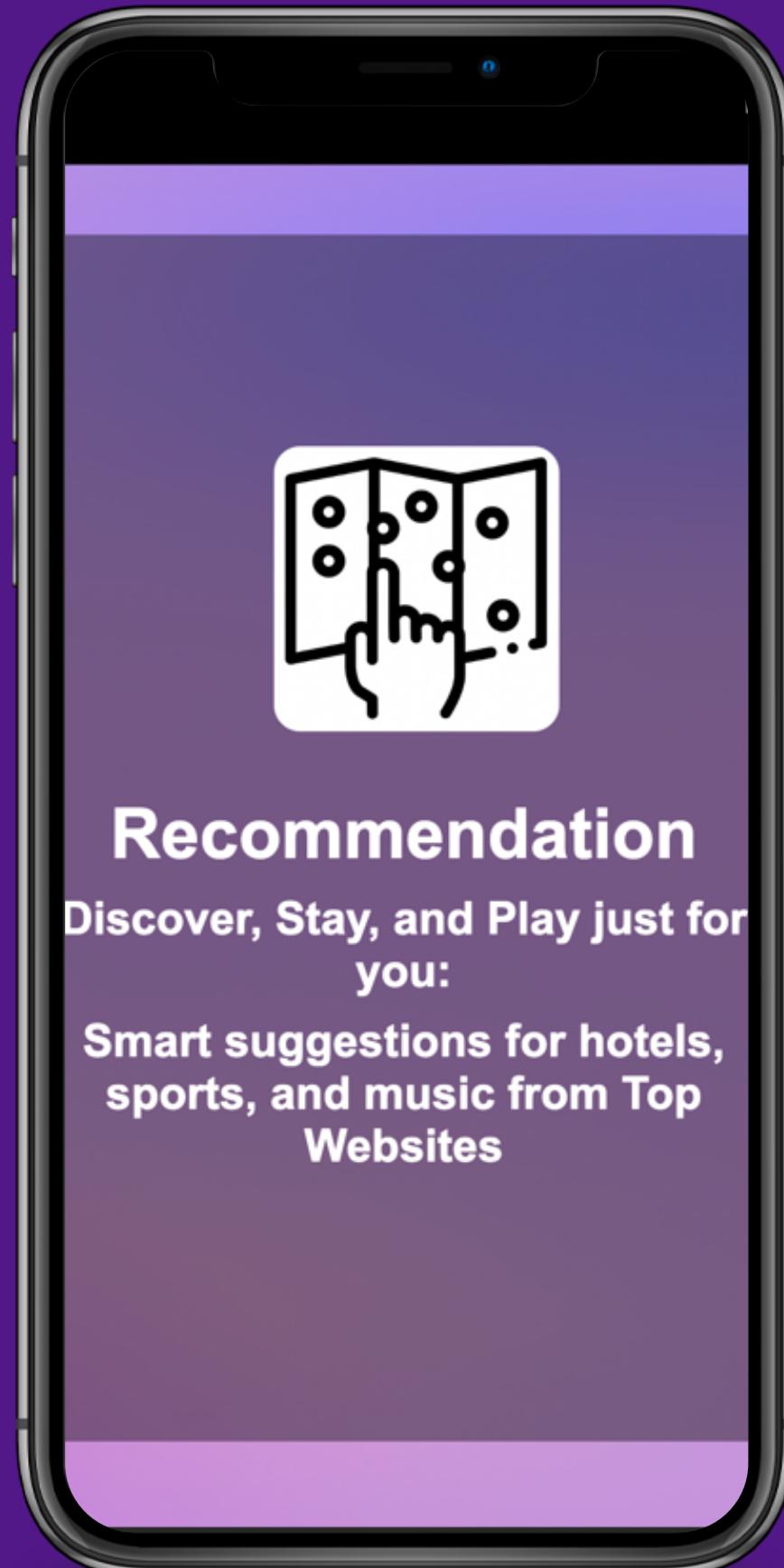


# SOLUTIONS



- Text/voice input and output
  - Speech-to-text: Transcribe
  - Text-to-speech: Polly
  - Storage: S3 Bucket
- Real-time search engine
  - Ticketmaster API
  - Amadeus API

# SOLUTIONS



- Domain knowledge ChatBot
  - Retrieval-augmented Generation
  - OpenAI API
- Front-end design
  - Polling scheduled tasks



Be a WanderVoice Backer! Thank you for listening.

# TOUR GUIDE CHATBOT

## Interactive Q&A:

Q&A on travel-related queries. Ask about destination description, attractions in a city, etc.

## Voice/text input and output:

Utilizes AWS Transcribe for voice-to-text conversion, enabling natural language understanding.

## Artificial Intelligence:

Leverages OpenAI's LLMs for contextual and informative responses to user questions.

## Tour Guide

Navigate the Road of Knowledge:

Your In-Car Companion for Instant Answers and Conversations.



Search



Pack comfortable shoes, weather-appropriate clothing, and a map or guidebook. Don't forget essentials like a camera, phone charger, and some cash. Plan your itinerary in advance, including must-see attractions and places to eat. Enjoy your trip to New York!



## Tour Guide

Navigate the Road of Knowledge:

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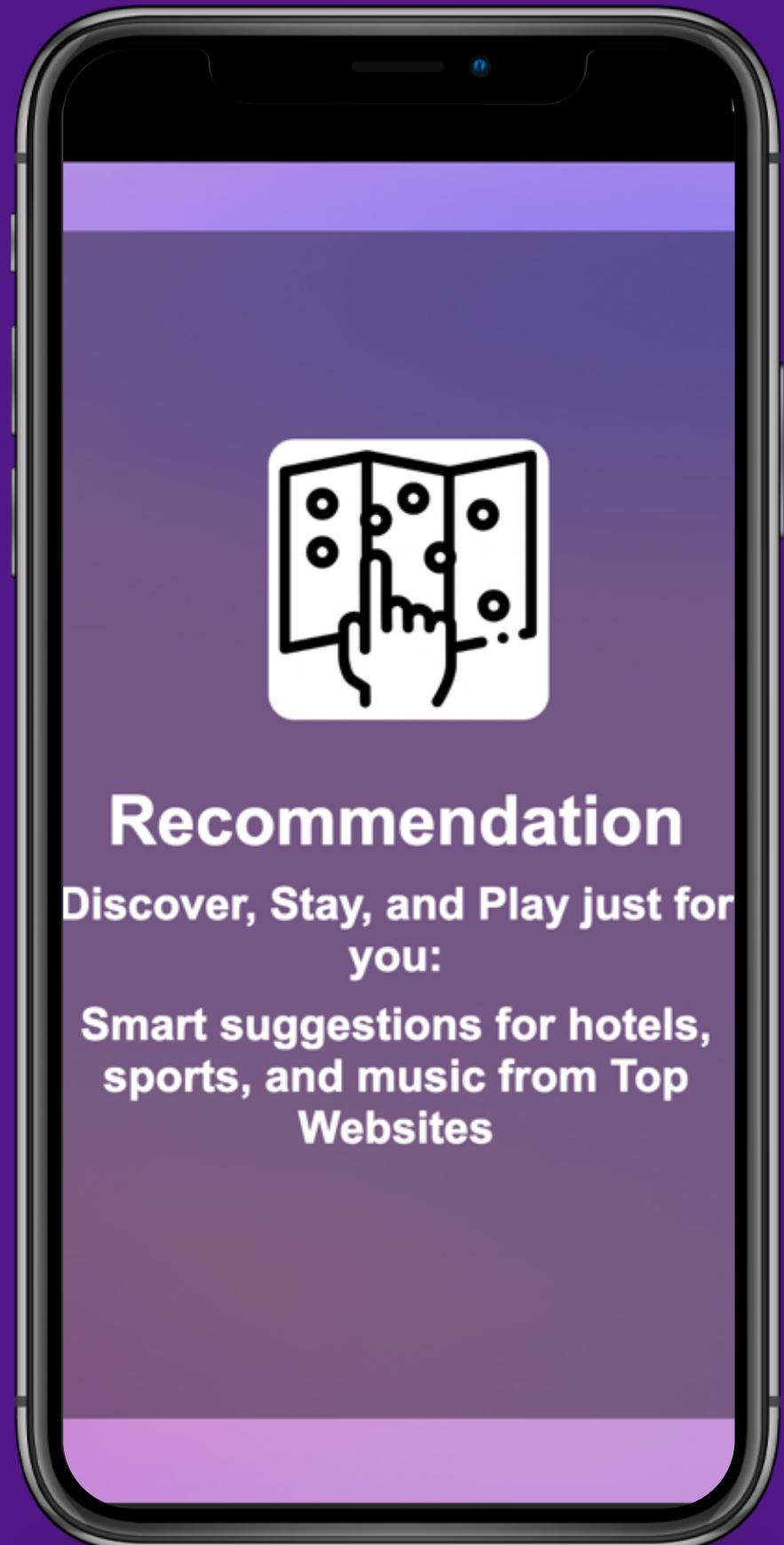
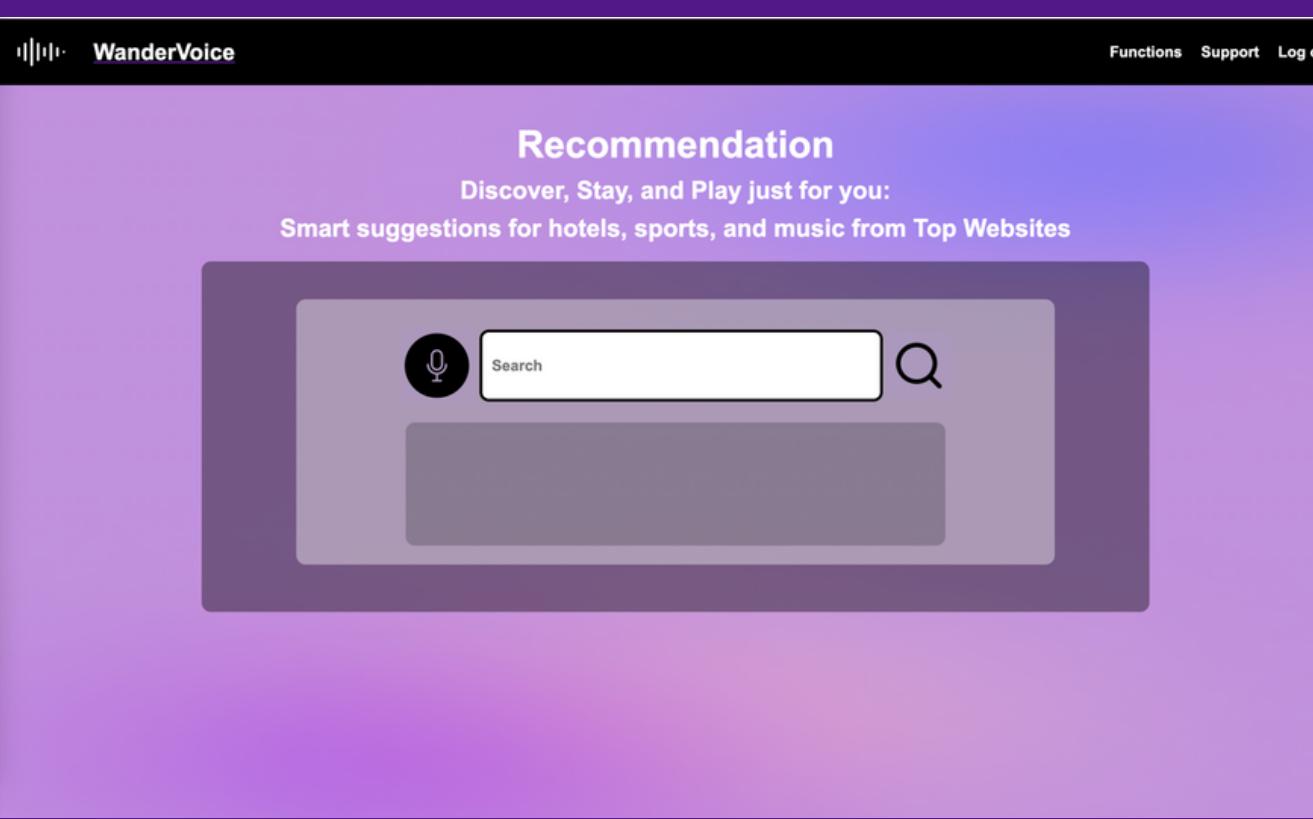
Search



Search



# REAL-TIME RECOMMENDATION SERVICE



## API Integration

Integrates Amadeus API for up-to-date housing information including ratings, locations, and amenities.

Incorporates Ticketmaster API for the latest event information such as descriptions, timings, and ticket details.

## Customization

Tailored responses to user preferences and current location

# RESULT

## Test on Tour Guide Service

Query : Could you provide a brief history of the Brooklyn Bridge as we drive across it?

Response : The Brooklyn Bridge is a historic bridge located in Coti. It has been an important transportation route for many years, connecting different parts of the town. The bridge is known for its architectural beauty and has become a popular landmark in the area.

## Test on Recommendation Service

Query: I'm looking for a boutique hotel in Manhatta that's pet-friendly. Any suggestions?

Response: I found several pet-friendly hotels in Manhattan for you. The DREAM Meatpacking District, Four Seasons New York, and Hyatt Times Square New York are all highly rated 5-star hotels that allow pets. These hotels offer amenities such as a spa and valet parking. Another option is The Mercer, which also has a 5-star rating and offers valet parking. If you're looking for a hotel with parking and valet parking, the Four Seasons New York is a great choice. All of these hotels are located in the vibrant city of New York and provide a comfortable stay for both you and your furry friend.

## Run Time Analysis

Time (s)	Text output	Voice output
Tour Guide	$4.6433 \pm 0.9367$	$35.3640 \pm 1.6500$
Recommendation	$11.8950 \pm 1.0921$	$42.1667 \pm 2.5166$