

Ai Heathcare Chatbot

Presented By
Team Alpha NLP

Overview

Objective:

To create an AI-driven healthcare chatbot to assist users with medical appointments and inquiries.



DATA

The development of the AI healthcare chatbot integrates multiple datasets to ensure comprehensive and accurate responses to user inquiries. The primary datasets utilized in this project are the Pathoma & USMLE Part 1 2024 Edition and a CSV file containing data on doctors, including their schedules and specializations. These datasets collectively enhance the chatbot's ability to provide detailed medical information and facilitate appointment scheduling.

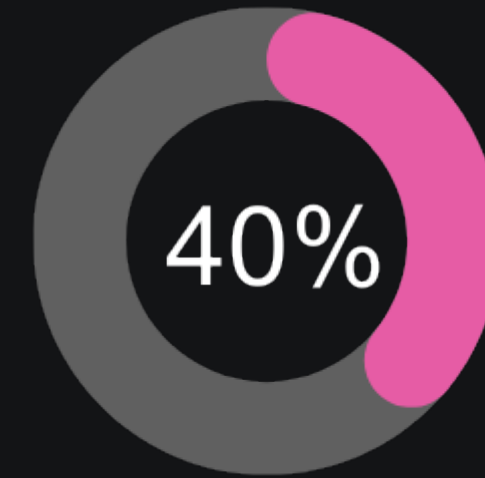
Chat

Type your message here...

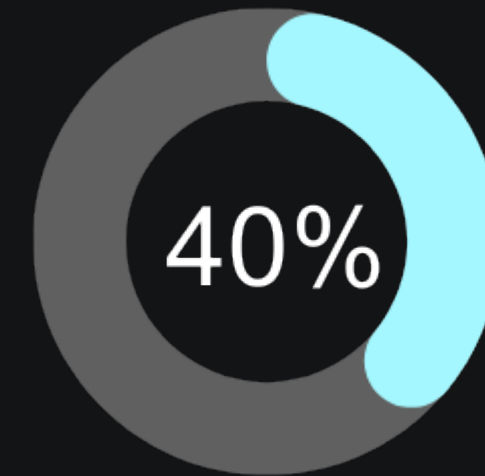
Start
Listening

Send

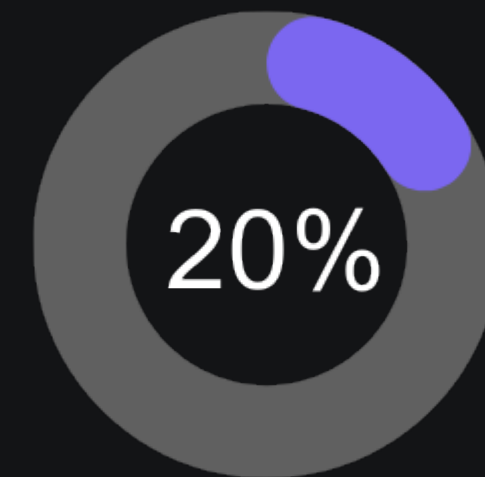
Export Chat



Pathoma



USMLE



**Appointment
Assistant**

Technique

- GROQ API Model Import: Efficiently import and utilize machine learning models.
- Pinecone API Vector Database: Handling large-scale vector data for fast and accurate information retrieval.
- Prompt Engineering: Crafting effective prompts for the chatbot to assist with appointment scheduling and medical inquiries.
- Map Integration: Using Leaflet to integrate maps to provide location-based services.

Architecture

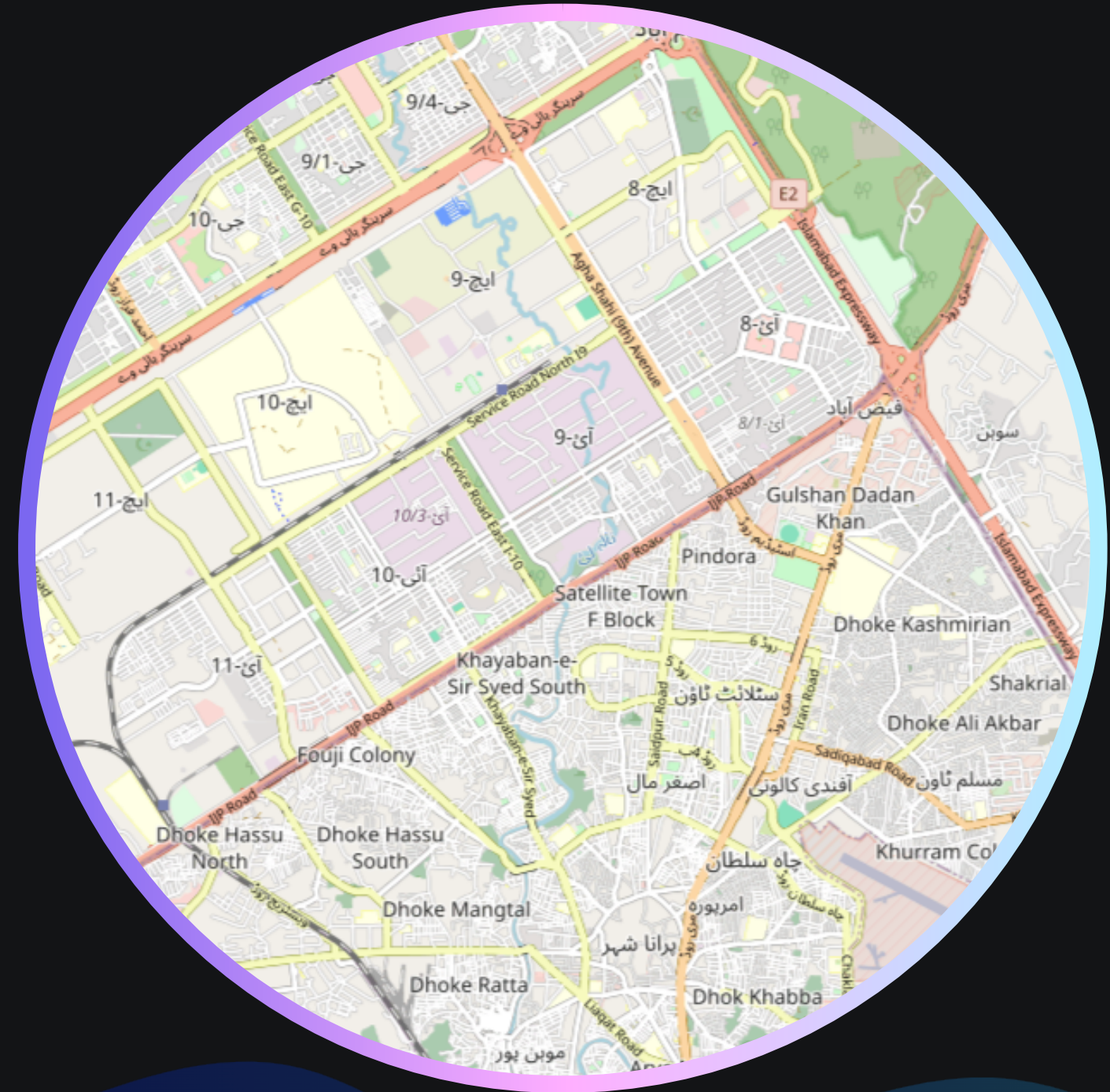
- Frontend: Designing the user interface using React.
- Backend: Integration with server-side services for handling requests and data.
- Database: Using Pinecone API for storing and retrieving vectorized data.

Prompt Engineering

- Objective: To streamline the process of scheduling medical appointments.
- Techniques:
 - Designing prompts to understand user queries.
 - Providing accurate and timely responses.
 - Integrating with calendar systems to manage appointments.

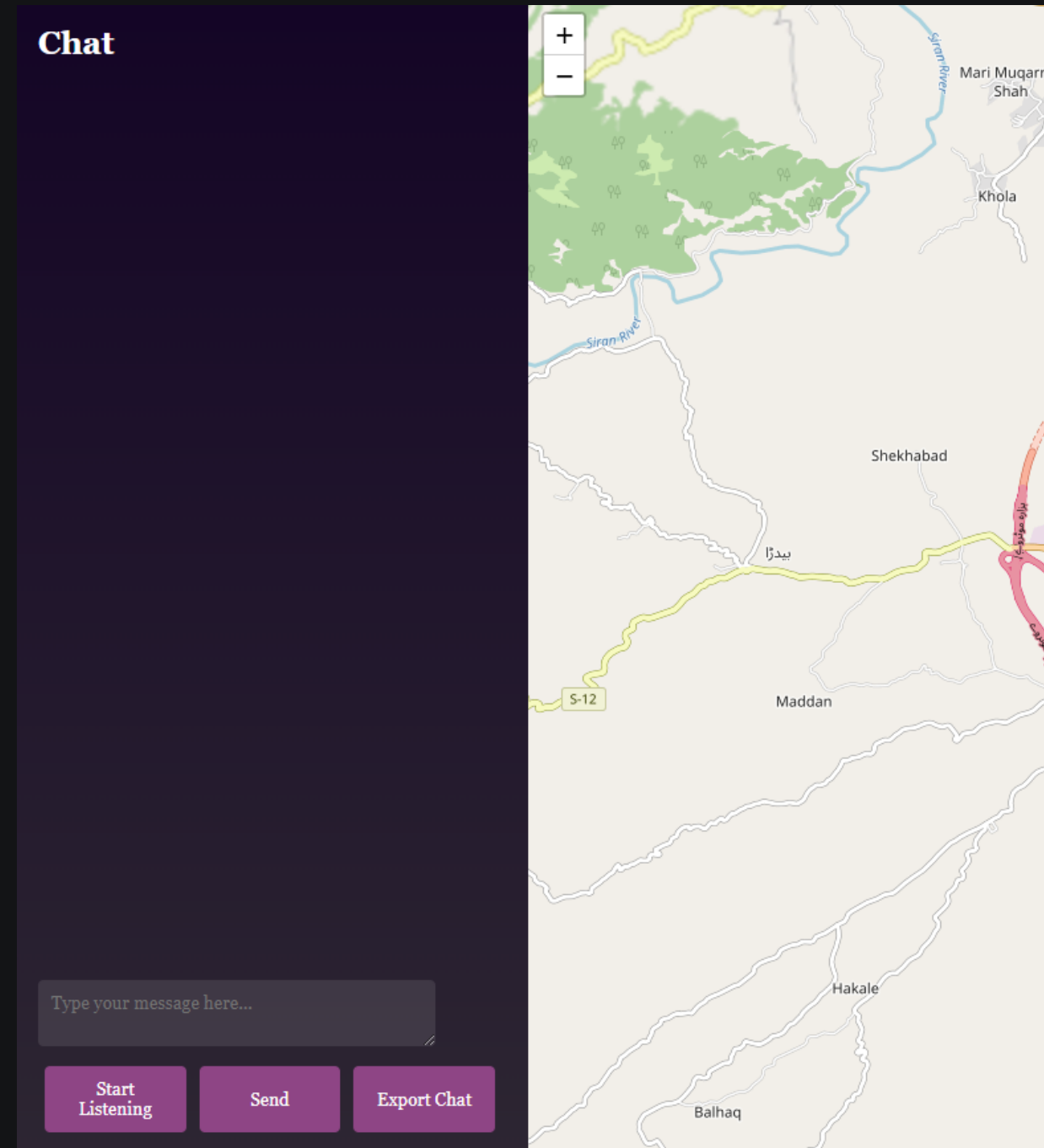
Map Integration

- Objective: To provide users with location-based services.
- Features:
 - Displaying clinic locations.
 - Providing User's Location
 - Integrating with other APIs for enhanced map functionalities.



UI Design

- Objective: To create a user-friendly and interactive interface.
- Key Elements:
- Responsive design for various devices.
- Intuitive navigation and layout.
- Incorporating chatbot interface seamlessly



Backend Integration

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- Objective: To ensure smooth communication between the frontend and backend.
- Techniques:
- Implementing API endpoints for data exchange.
- Ensuring secure and efficient data handling.
- Leveraging cloud services for scalability and reliability.

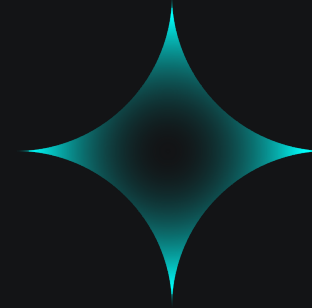
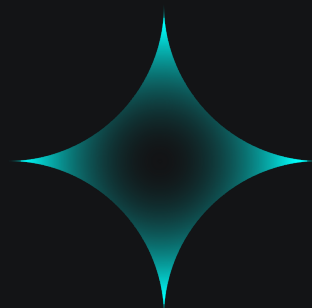
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Deployment

- Objective: To deploy the application in a production environment.
- Process:
- Setting up the deployment pipeline.
- Ensuring continuous integration and delivery (CI/CD).
- Monitoring and maintaining the application post-deployment.



Thank You



Team Alpha NLP