

ENHANCING HEALTHCARE ACCESSIBILITY THROUGH AI TECHNOLOGIES

PROBLEMS

LACK OF SYMPTOM EVALUATION

Many patients **struggle** to accurately **assess the severity** of their symptoms, leading to worsened outcomes. [1]

LIMITED HEALTHCARE ACCESS

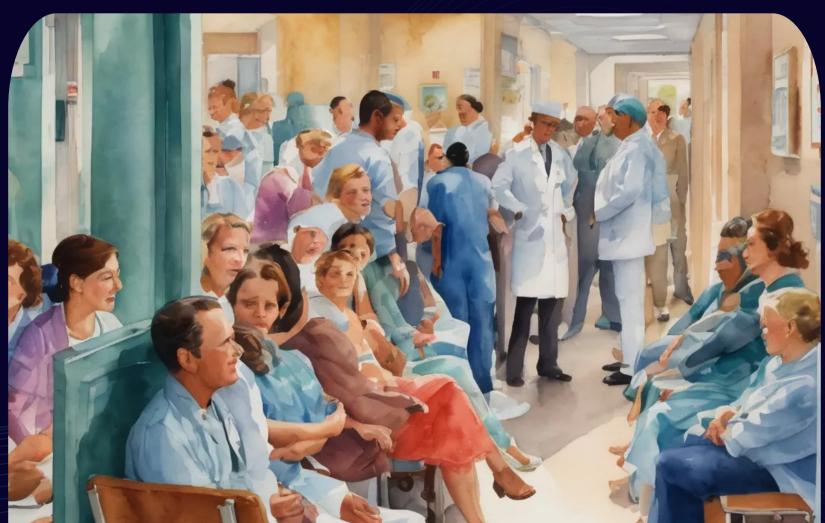
Peoples face barriers in accessing healthcare services due to **financial constraints** and **geographical distances**. [2]

IMBALANCED MEDICAL WORKFORCE

This imbalance strains healthcare resources, leading to long wait times for appointments, reduced quality of care, and overwhelmed medical professionals. [3]



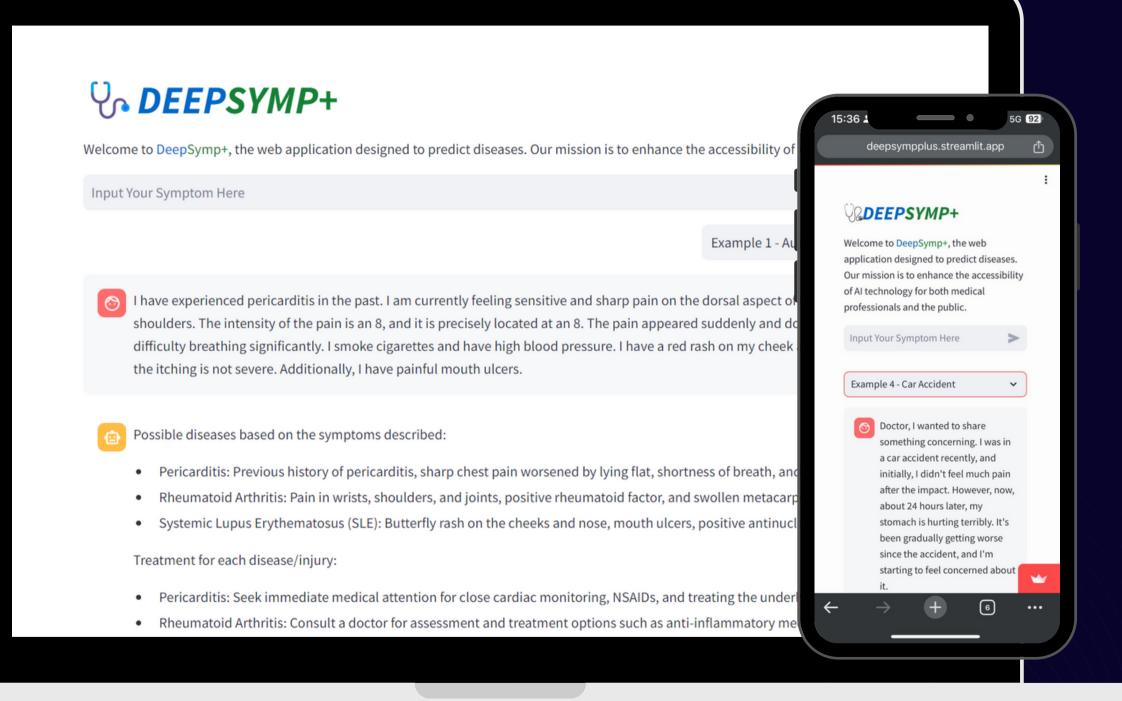




SOLUTION

Introduce DEEPSYMP+

An Evidence-Based Diagnostic Al



DEEPSYMP+

SIMPLE AND RELIABLE DIAGNOSTIC

Our data-driven system offers clear and dependable symptom analysis, ensuring accurate diagnoses with ease.

DATA-DRIVEN DIAGNOSTIC

Benefit from personalized insights driven by robust pipeline, providing **tailored diagnostics** for improved health outcomes.

ACCESS FROM ANYWHERE

With our platform, diagnostic services are accessible anytime, anywhere, **breaking down geographical barriers** for seamless healthcare.

U. DEEPSYMP+

Welcome to DeepSymp+, the web application designed to predict diseases. Our mission is

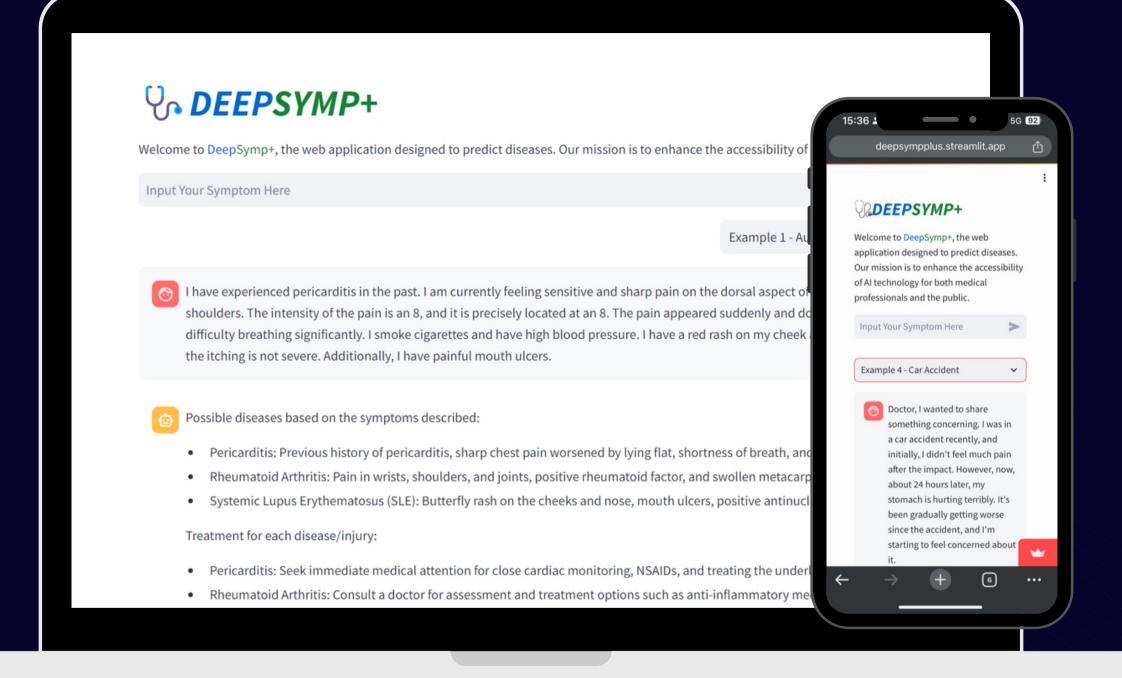
Input Your Symptom Here

- I have experienced pericarditis in the past. I am currently feeling sensitive and she shoulders. The intensity of the pain is an 8, and it is precisely located at an 8. The difficulty breathing significantly. I smoke cigarettes and have high blood pressure the itching is not severe. Additionally, I have painful mouth ulcers.
- Possible diseases based on the symptoms described:
 - Pericarditis: Previous history of pericarditis, sharp chest pain worsened by ly
 - Rheumatoid Arthritis: Pain in wrists, shoulders, and joints, positive rheumator
 - Systemic Lupus Erythematosus (SLE): Butterfly rash on the cheeks and nose

Treatment for each disease/injury:

- Pericarditis: Seek immediate medical attention for close cardiac monitoring
- Rheumatoid Arthritis: Consult a doctor for assessment and treatment option

DEEPSYMP+



Click To Access Demo Web Application Here

TECHNOLOGIES







OpenAl

MongoDB

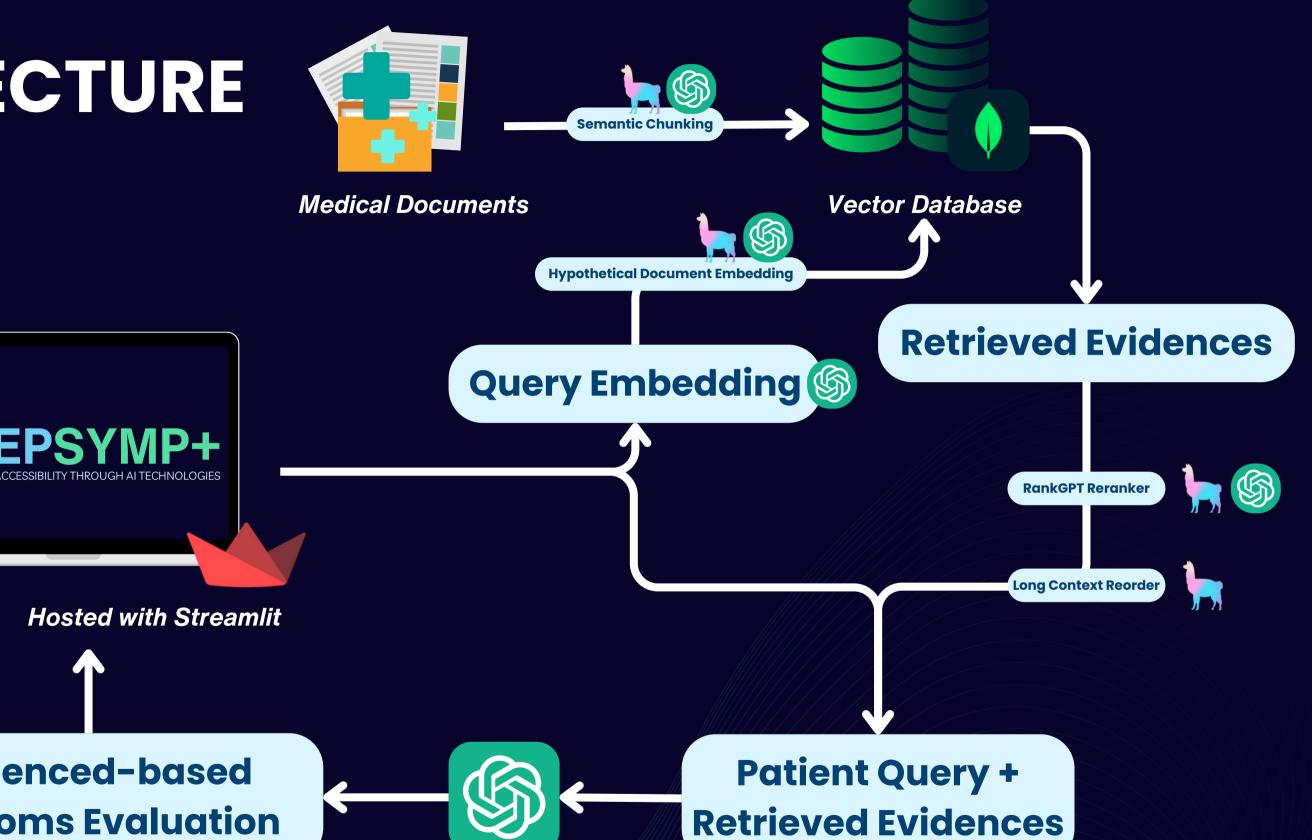






Streamlit

RAG ARCHITECTURE



Patient Query

Pipeline Optimization

Evidenced-based Symtoms Evaluation

ChatGPT 4

HYPERPARAMETER TUNING WITH TRULENS

Answer Relevence

Context Relevence

Groundedness



Optimize the RAG pipeline by tuning hyperparameters using three metrics from TruLens: Answer Relevance, Context Relevance, and Groundedness.

COMPONENTS & HYPERPARAMETERS TO TEST

Query Transform Engine

HyDE
Step Decompose
Retry Query
FLARE Instruct
No Query Transform

Reranker

Colbert Rerank
RankGPT Rerank
Cohere Rerank
ms-marco-MiniLM
mMiniLM and more...

Prompt Compression

<u>Longlimlingua</u> No Compression

And More Components...

MARKET OPPORTUNITY

TOTAL ADDRESSABLE MARKET (TAM)

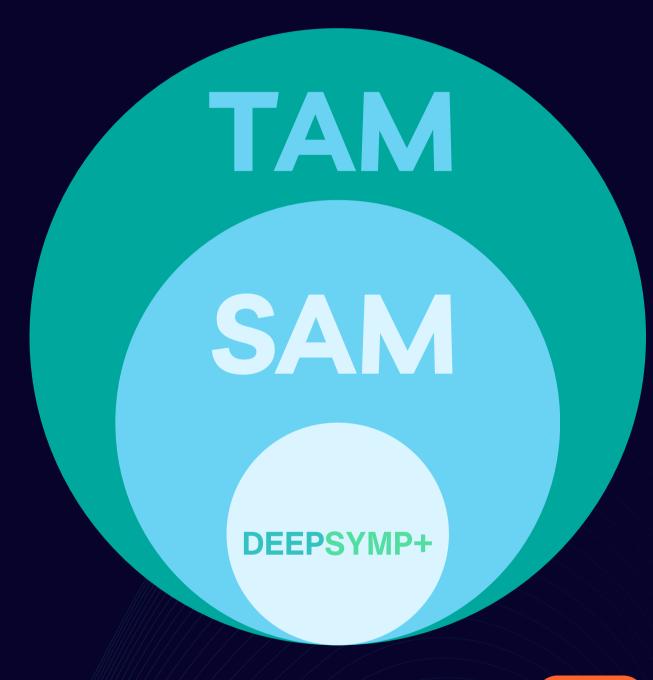
935M

SERVICEABLE AVAILABLE MARKET (SAM)

492.7M 52.69% of TAM

SERVICEABLE OBTAINABLE MARKET (SOM)

10M 2% of SAM



Analyzed with SEMRUSH with 80 competitors

NEXT STEP

Months 1-6

WEB APPLICATION & AI DEVELOPMENT

Months 7-12

MARKETING & PRODUCT LAUNCH

Months 13-24

GROWTH & INNOVATION



- Conduct rigorous testing with real patient data to validate accuracy and reliability.
- Prepare for beta launch

- Develop a comprehensive marketing strategy for the product launch
- Execute a full product launch
- Monitor launch performance

- expanding the user base through targeted marketing and sales initiatives
- Explore opportunities for partnerships
- Continuously innovate and iterate on the product
- Plan long-term sustainability and scalability



ABOUT ME



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