



HackOrbit 2025

Coding Era!

THEME & PROBLEM STATEMENT



Despite advancements in medical technology, timely and accurate diagnosis remains a significant challenge. In remote areas, where **3.5 billion people lacks access to specialists (WHO data)**, delayed or missed diagnosis increases mortality rates.



Clinicians face overwhelming workloads, often analyzing hundreds of images daily, leading to fatigue and oversight of subtle disease markers.



Inconsistent image quality and limited access to advanced diagnostic tools further exacerbate these issues, underscoring the need for an innovative, AI driven solutions.

PROPOSED SOLUTION

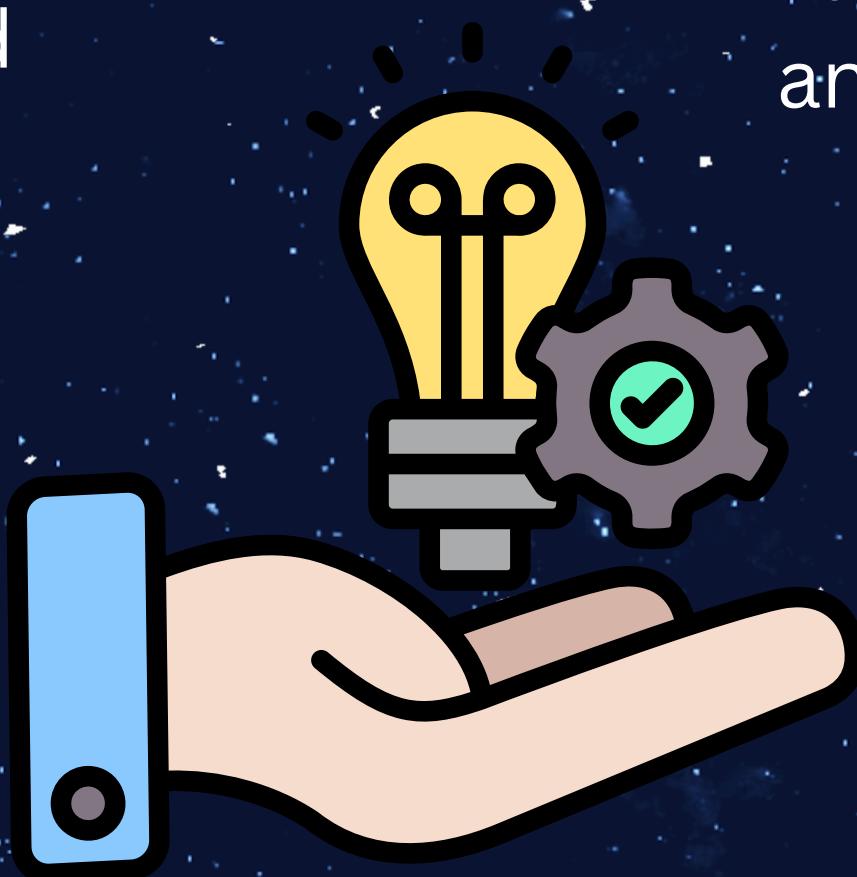
The proposed solution is a multi-profile web application powered by state-of-the-art AI models, including CNNs and NLP, designed to serve both patients and doctors.

AI Assistance

Supporting doctors with AI-assisted tools for patient management, report analysis, and disease monitoring

Specialist Locator

Connecting patients with nearby specialists via GPS-based search.



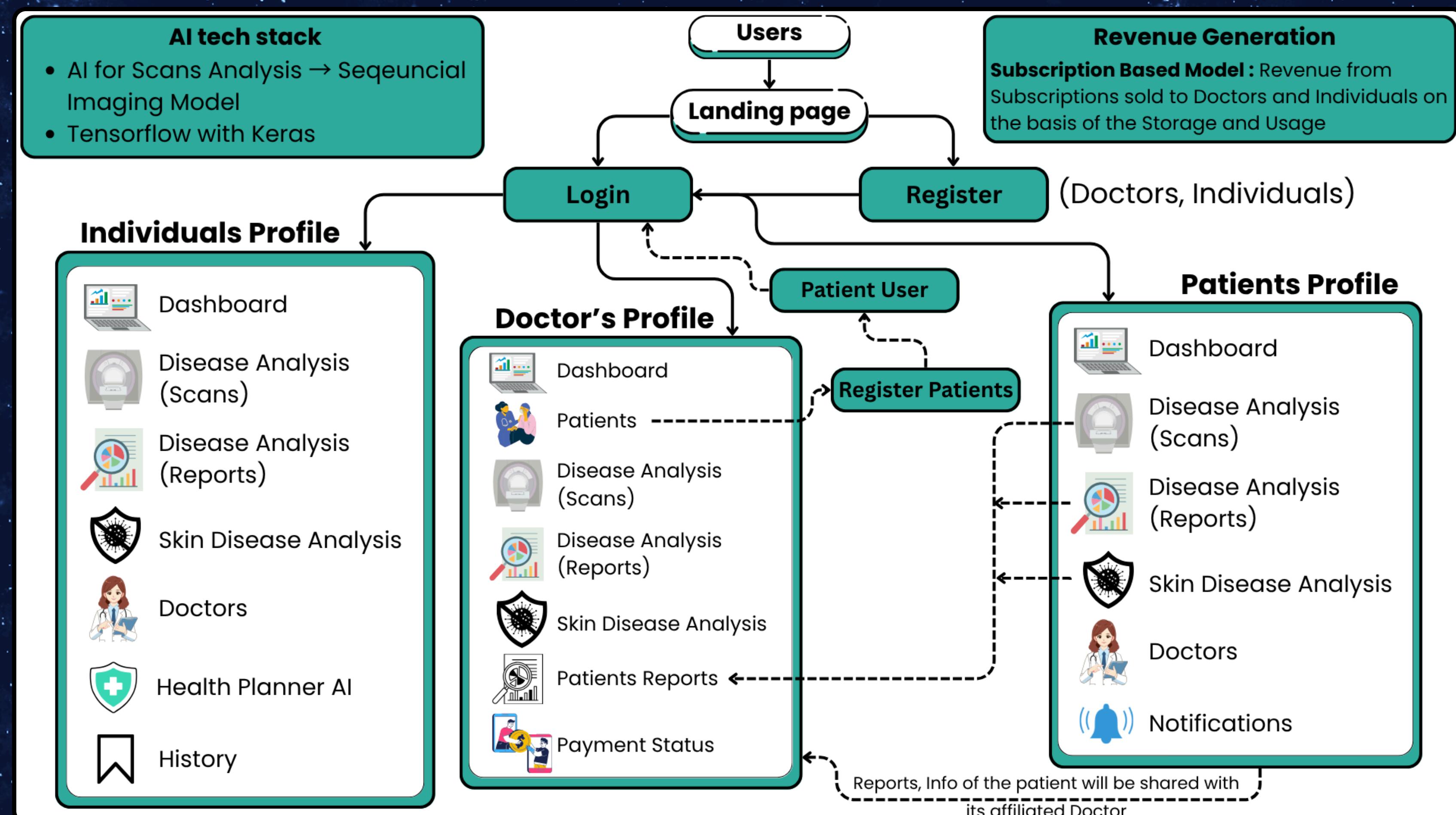
AI Diagnostics

Enabling patients to upload and analyze diagnostic reports and scans using AI-driven tools.

Early Detection

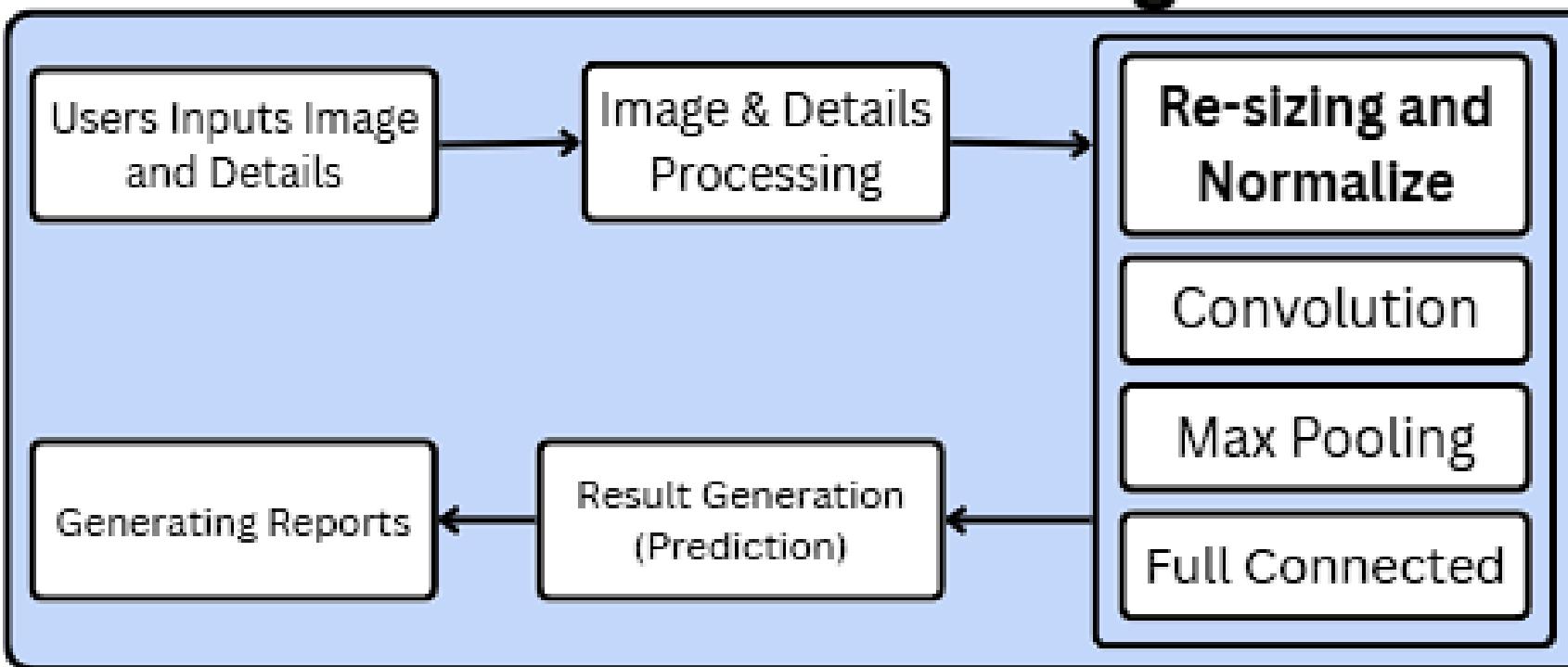
Facilitating early detection of diseases, such as cancer and diabetic retinopathy, through automated analysis.

FLOWCHART / DIAGRAM

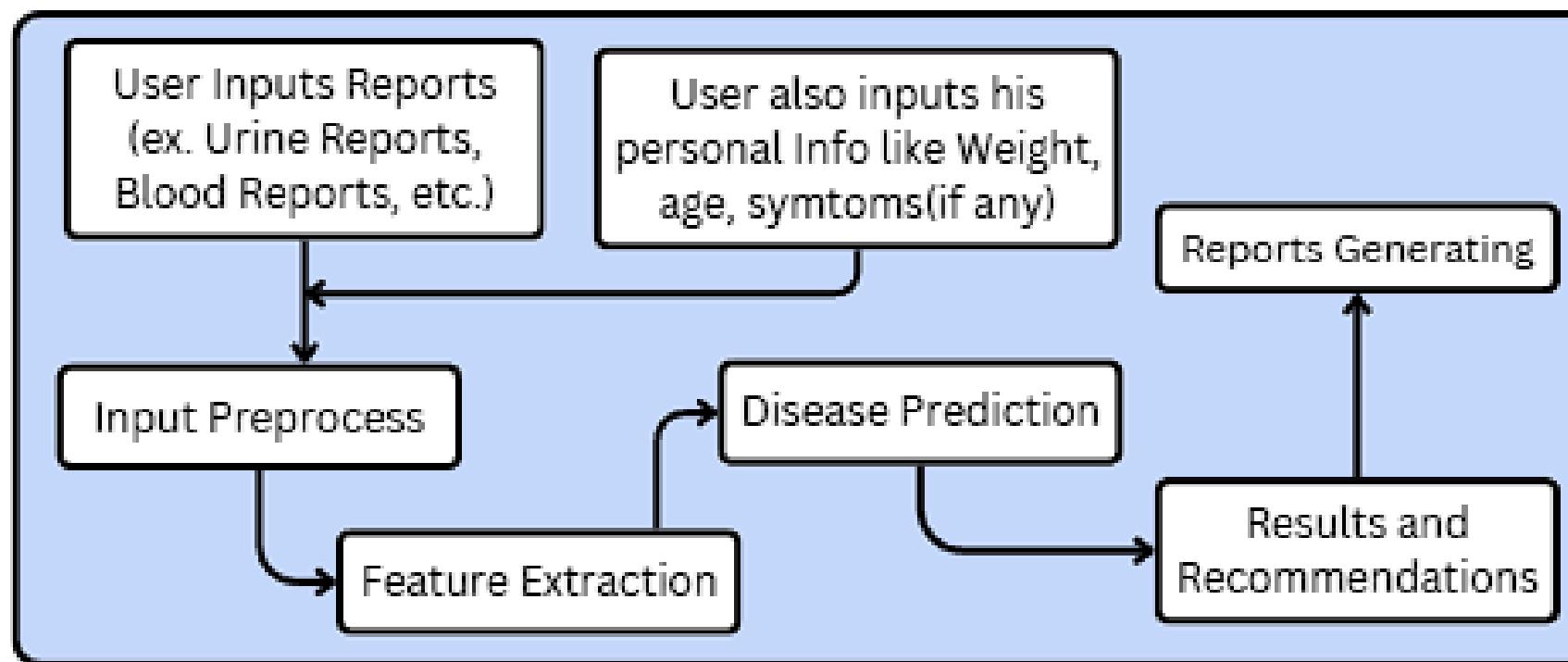


FLOWCHART / DIAGRAM

AI Scans Dataflow Diagram



AI Reports Dataflow Diagram



Future Updations

- Adding Image Detection Model for detection wrong or incorrect images uploads.
- Creating a Chatbot which can be used after analysis of the reports so to understand more about the disease or any remarks.
- Creating Learners Profile for Learning Enthusiastics with its own capabilities

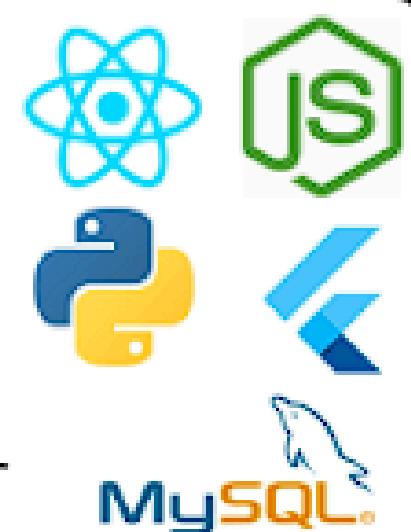
Tech Stack

Frontend : React.JS

Backend : Nodejs with Express and Python for AI

Database : PostgreSQL

Mobile App : ReactNative or Flutter



FEATURES AND NOVELTY

Patient Management
Facilitates doctor registration of patients and care plan assignments.

Doctor Interface
Centralizes patient data, tasks, and AI-driven scan/report analysis.

Notifications & Payments
Sends real-time alerts for results and schedules; tracks consultation payment

Patient Dashboard
Tracks health status, analysis results, and personalized notifications.



24/7 AI Assistant
Talk or upload files anytime for health support with voice and file input support

AI Disease Analysis
Uses OCR/NLP for reports, CNNs for scans, and AI for skin lesion classification

Disease Detection
Our AI detects diseases like cancer, brain tumors, tuberculosis, and skin conditions for quick, accurate diagnosis.

Doctor Search & Sharing
GPS-based specialist search, appointment booking, and secure report sharing

DRAWBACK AND SHOWSTOPPERS



- Reduced accuracy with low-quality images (<1MP).
- Complex initial model training requiring large datasets.
- Potential resistance from clinicians unfamiliar with AI

- Competition from established players (e.g., IBM Watson Health).
- Regulatory delays for FDA/EMA approvals.
- Bias in AI models from unrepresentative data.
- Cybersecurity vulnerabilities in cloud systems

Team: Coding Era!

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thank
you