

INTRODUCTION

DermAl is an Al-powered dermatology assistant designed to revolutionize skin disease diagnosis and patient care. Leveraging cutting-ed technologies in artificial intelligence and image recognition, DermAl provides accurate and efficient analysis of skin conditions, offers personalized recommendations, and facilitates seamless communication between patients and dermatologists.

PROBLEM STATEMENT





Limited Access to

Dermatologists: Many
individuals lack access to
dermatologists due to
geographical constraints,
long waiting times, or
financial limitations.

Diagnostic Accuracy:

Skin disease diagnosis
often relies on visual
examination, which may
be subjective and prone
to human error.

Patient Education and
Engagement: Patients
may have limited
understanding of skin
conditions, treatment
options, and preventive
measures.

PROJECT OBJECTIVES



ACCURATE DIAGNOSIS:

Develop Al algorithms for precise identification and diagnosis of various skin conditions, aiding dermatologists in treatment planning and patient care.



IMPROVED ACCESS TO CARE:

Enhance accessibility to dermatological services through remote consultations and appointment scheduling, addressing geographical barriers and improving patient convenience.



EFFICIENT WORKFLOW:

Streamline
administrative processes,
such as appointment
booking and data
management, to
optimize operational
efficiency and enhance
the patient experience.

PROJECT SCOPE

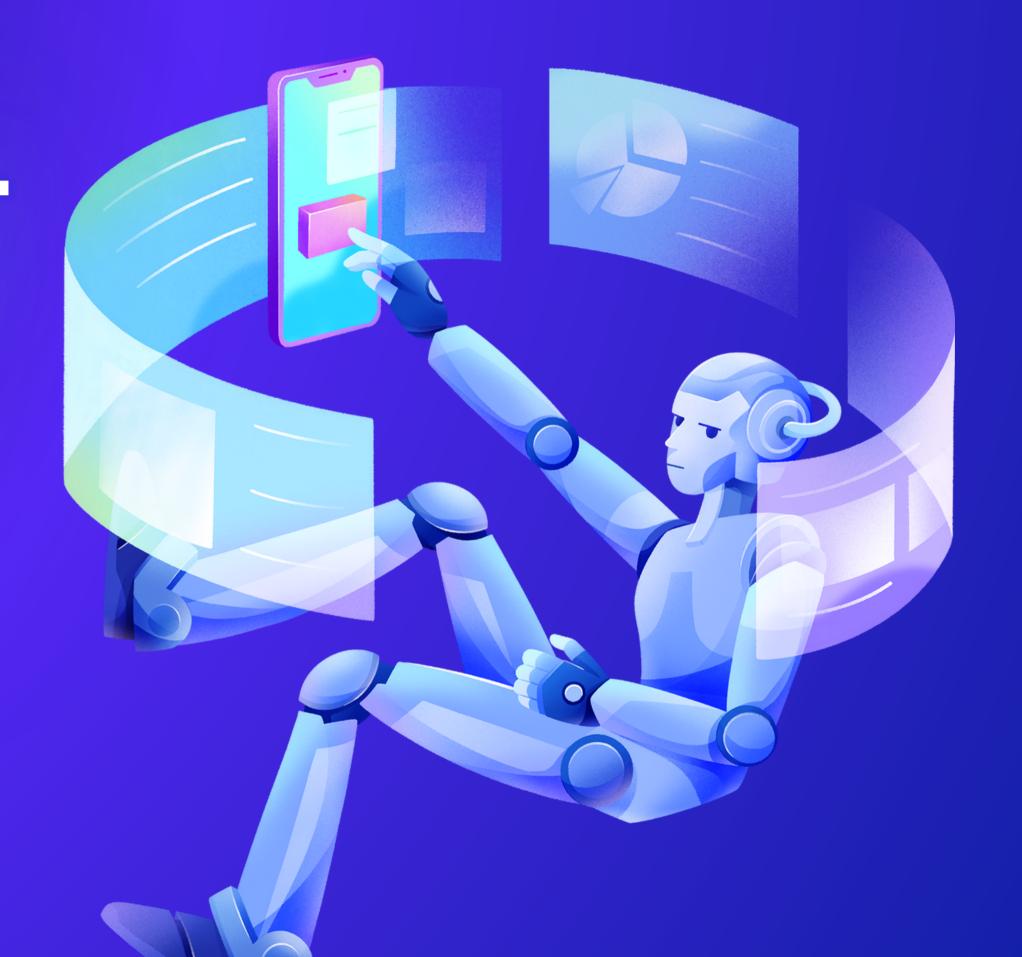


IMAGE RECOGNITION AND DIAGNOSIS:

DermAl utilizes advanced image recognition algorithms to analyze skin images and identify various skin conditions, including rashes, lesions, and abnormalities.

CONTINUOUS IMPROVEMENT AND INNOVATION:

DermAl adopts an agile development approach, incorporating user feedback, stakeholder input, and technological advancements to enhance functionality, usability, and performance.

APPOINTMENT SCHEDULING AND REMOTE CONSULTATIONS:

DermAl offers a user-friendly interface for patients to schedule appointments with dermatologists.

DIAGNOSTIC REPORTING AND TREATMENT RECOMMENDATIONS:

DermAl generates detailed diagnostic reports based on the analysis of skin images, highlighting key findings, differential diagnoses, and recommended treatment options.



TECHNICAL ARCHITECTURE

- 1. Machine Learning and AI: DermAI employs advanced machine learning models for image recognition, natural language processing, and decision support.
- 2. Image Processing: Image processing libraries such as PIL (Python Imaging Library) are used for preprocessing and analyzing skin images.
- 3. Web Development: Streamlit is utilized for building the user interface, allowing for seamless interaction and visualization of analysis results.
- 4. Database Management: MongoDB is employed for storing appointment data facilitating data retrieval and management.

