**Alera: Empowering Skin Health Through Smart Diagnosis**

**ABSTRACT**

Alera is a next-generation dermatological diagnostic system designed to identify the root causes of skin reactions through a multimodal AI approach. By combining image-based analysis with Large Language Models (LLMs), Alera intelligently interprets both visual cues and user-submitted symptom prompts to provide accurate, context-aware skin condition assessments. Unlike traditional dermatology tools that rely solely on static classification, Alera utilizes a pre-trained ResNet-50 CNN to evaluate affected skin regions and integrates Retrieval-Augmented Generation (RAG) via LLMs to deliver medically grounded explanations, possible causes, and treatment suggestions.  
  
The system maintains a seamless, conversational interface, allowing users to explore follow-up queries and gain personalized insights. Emphasizing user accessibility and diagnostic depth, Alera bridges the gap between expert-level dermatology and AI-assisted self-care, particularly in areas with limited access to specialists. Through this hybrid approach, Alera aims to redefine skin health awareness and support early intervention for diverse dermatological concerns.

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