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FaceMap: AI-Powered Skin Type and Acne Analysis in Real-Time

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Abstract:*Facial recognition technology enables the identification and analysis of human faces from digital images or video framesbyextractingandmeasuringkey facial features. Beyond user authentication, AI-driven skin analysis has emerged as a rapid and accurate diagnostic tool for assessing various skin conditions. Leveraging advanced machine learning algorithms, this technology can detect multiple skin concerns, including acne severity, hydration levels, redness, and wrinkles, within seconds.TheAI-poweredSkinAnalyzerevaluates the T-zone and U-zone of the face to determine key skin attributes such as oiliness, dryness, and sensitivity. This analysis helps classify skin types into categories like normal, oily, dry, sensitive, or combination, providing a foundation for personalized skincare recommendations. FaceMap: AI-Powered Skin Type and Acne Analysis in Real-Time enhances skin assessment by analyzingimages fromdifferentfacialangles—front,left,andright profiles. This real-time analysis ensures comprehensive facial coverage, including traditionallychallengingareas like the chin and cheeks.*

Keywords: Acne Detection, Skin Type Classification, Facial Image Analysis, AI Dermatology, Multi-Zone Skin Assessment

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