

Smart Symptom-to-Care System Using AI and Machine Learning: Intelligent Health Diagnosis and Personalized Medical Guidance for Early Disease Detection

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Abstract: *In an increasingly digital world, individuals often seek online health guidance and face overwhelming, unreliable, and complex information. To address this, Smart Symptom-to-Care AI has been developed as a comprehensive and trustworthy web application serving as the first point of contact for personal health inquiries. Leveraging the advanced reasoning and structured data capabilities of Google's Gemini API, the platform delivers a personalized, multi-faceted, and user-friendly experience. Its core feature, an AI-driven Symptom Analyzer, processes user-input health data to generate a list of probable conditions with confidence scores, impacts, and suggested home remedies. Recognizing the vital doctor-patient relationship, the system allows users to download a professional PDF report to facilitate informed discussions with healthcare providers. Additionally, the platform includes a real-time conversational AI Health Assistant, a detailed disease encyclopedia, emergency first-aid resources, and a local healthcare facility locator. Built with a modern, responsive React and Tailwind CSS frontend supporting both light and dark modes, the application exemplifies how ethical generative AI can be integrated into consumer health technology. By providing an intelligent and compassionate digital health companion, the Smart Symptom-to-Care AI fosters health literacy, reduces anxiety, and empowers users to take active roles in their wellness journey—bridging the critical gap from symptoms to professional care.*

Keywords: Smart Symptom-to-Care AI, Generative AI, Google Gemini API, Symptom Analyzer, Health Assistant, Disease Encyclopedia, Healthcare Technology, AI in Healthcare, Health Literacy, Doctor-Patient Relationship, Ethical AI, Digital Health, React, Tailwind CSS, Web Application, Preventive Care, Health Awareness, AI-driven Diagnosis, Health Informatics, User-Centric Design

