Medicine Recommendation System

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Abstract*: The increasing complexity of healthcare and the growing volume of available medications necessitate the development of efficient medicine recommendation systems to assist healthcare providers and patients in making informed decisions. This paper presents the design and implementation of a web- based medicine recommendation system aimed at improving medication selection and adherence. The system leverages advanced machine learning algorithms, such as collaborative filtering and content-based filtering, to provide personalized medicine recommendations based on user profiles, medical history, and specific health conditions. The architecture of the system comprises a user-friendly frontend developed using React.js, which allows for seamless interaction and visualization of recommendations. The backend is powered by Flask, facilitating the handling of user requests, database interactions, and machine learning model deployment. A PostgreSQL database is employed to securely store user data, medication details, and historical interactions, ensuring data integrity and security*

Keywords: Medical recommendation system, machine learning, healthcare, personalized treatment, AI in medicine, clinical decision support