

AI-Based Disease Prediction And Remedy Recommendation System

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Abstract: *A machine learning system is developed to predict diseases using 31 symptom indicators. The project covers data preparation, training a Random Forest model, evaluating its performance, and creating a Flask- based web interface for users to get predictions with a confidence score. It focuses on data quality, model interpretability, deployment, and ethical aspects like bias, privacy, and security. The system provides a complete end- to-end solution, including a clean data pipeline, reproducible training workflow, and evaluation using multiple metrics. It also highlights challenges like limited and imbalanced datasets and suggests improvements such as using larger datasets, better explain ability methods, and secure data handling. Overall, this work demonstrates the practical use of machine learning in identifying diseases at an early stage and serves as a meaningful step toward expanding research and applying such systems in real healthcare settings.*

Keywords: Symptoms, Random Forest, Decision Tree, Machine Learning, Classification

