CANTILEVER AIML PROTERNSHIP 2025

ABSTRACT

Project Title:

AILO: DISEASE PREDICTION

Team Details:

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Abstract

AILO: An Intelligent Disease Prediction System Using Machine Learning

In recent years, the integration of Artificial Intelligence (AI) into healthcare has opened new possibilities for early disease detection and personalized medical care. This project, titled AILO (Artificial Intelligence for Logical Observation), presents a machine learning-based system that predicts diseases based on user-input symptoms, offering an accessible and efficient diagnostic aid.

The system allows users to select symptoms from a predefined list through an intuitive web interface. Once the symptoms are submitted, the backend processes them using multiple machine learning algorithms including Decision Tree, Random Forest, and Naïve Bayes. Each algorithm independently analyzes the input data and generates its prediction. The system then displays the output from all three models, helping to cross-verify and increase the confidence in the final diagnosis. In the test case shown, all algorithms consistently predicted the disease as Gastroenteritis, demonstrating a strong consensus among the models.

Key features of AILO include:
1.User-Friendly Interface: A clean and simple UI for symptom selection and result visualization.
2.Multi-Model Diagnosis: Utilizes multiple ML models to improve reliability and reduce the chances of misdiagnosis.
3.Scalable Design: Can be extended to support more diseases and incorporate advanced models like deep learning in the future.

4.Educational and Assistive Tool: Useful for students, educators, and general users who seek preliminary insights into potential health issues.

The project was developed under the guidance of Adgaonker Shashank Sir, focusing on the practical implementation of data science in the healthcare domain. With the rising need for quick and remote healthcare solutions, AILO showcases how technology can assist in democratizing health diagnostics, especially in areas with limited access to medical professionals.