Medical Diagnostic System for Breast Cancer Detection

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Project Overview:

This project aims to develop a diagnostic system using machine learning (ML) and deep learning (DL) models to detect breast cancer. The system will assist healthcare professionals by providing accurate and fast diagnostic support.

Objectives:

- Develop ML/DL models to accurately detect breast cancer.
- Deploy the system as a user-friendly web application for healthcare providers.

Relevance to SDG-3 (Good Health and Well-Being):

In 2022, the World Health Organization reported that breast cancer resulted in the deaths of 670,000 people worldwide, with 2.3 million women diagnosed with the disease. Breast cancer is the most common cancer globally, with 7.8 million women diagnosed in the past five years. Applying machine learning (ML) techniques can help identify breast cancer early.

Literature review:

Machine Learning Algorithms For Breast Cancer Prediction And Diagnosis
Prediction of Breast Cancer using Machine Learning Approaches

Datasets:

The datasets available in Kaggle website in form of csv file and images.
https://www.kaggle.com/datasets/uciml/breast-cancer-wisconsin-data
https://www.kaggle.com/datasets/paultimothymooney/breast-histopathology-images

Approach:

The project combines Machine learning and deep learning algorithms. Part of the data is structured data in the form of a csv file and the other part is unstructured data in the form of images.