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(57) Abstract :

This invention introduces a pioneering web framework tailored for cervical cancer detection using advanced machine learning techniques. Leveraging a comprehensive dataset encompassing demographic and medical history attributes, including age, sexual behavior, contraceptive usage, and medical diagnoses, our framework integrates AdaBoost, XGBoost, stacking classifier, and logistic regression models. These models are orchestrated to enhance diagnostic accuracy and reliability. The framework aims to streamline early detection and intervention processes crucial for improving patient outcomes in cervical cancer management. Through systematic evaluation and comparative analysis of these algorithms, our study underscores their efficacy in predictive modeling for cervical cancer, marking a significant stride in leveraging machine learning for healthcare advancements.

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