

Title: Machine Learning Models for Maternal Health Risk Prediction based on Clinical Data

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Abstract: In the healthcare industry, maternal health is of utmost importance because it directly affects the welfare of both mothers and infants. This study explores the crucial area of predicting maternal health risks with the goal of equipping healthcare professionals with precise tools for early risk assessment and intervention. The dataset being examined consists of 1102 painstakingly gathered examples that include 12 crucial attributes and were obtained from the closest hospital. Nine algorithms were utilized, leveraging machine learning skills, with XGBoost outperforming the others with 97.3% accuracy. The initial target of this research is to make it easier to precisely and comprehensively categorize maternal health risk factors, allowing for timely, focused interventions. This study has far-reaching implications for better healthcare resource allocation and, most importantly, the prospect of reducing detrimental maternal health events.

Keywords: Maternal Health , Risk Prediction , Machine Learning , Classification

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