



**bioengineering**



*Special Issue Reprint*

## **Health and Public Health Applications for Decision Support Using Machine Learning**

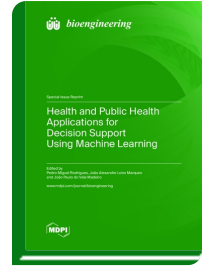
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"Health and Public Health Applications for Decision Support Using Machine Learning" is a reprint that explores the intersection of machine learning and health sciences. It presents a collection of research and innovations showcasing how data-driven algorithms can transform patient care, disease diagnosis, and public health management. The reprint covers a wide range of topics, including natural language processing for biomedical relation extraction, ensemble learning for blood glucose level forecasting in diabetes management, machine learning for predicting walking stability and fall risk among the elderly, deep learning for pneumonia-infected lung volume quantification, and more.

The reprint also discusses applications in precision medicine, early detection of renal damage, cardiac health monitoring, stress classification for mental health assessment, and early diagnosis of intracranial internal carotid artery stenosis. It emphasizes the role of machine learning in managing health crises, such as COVID-19 detection using ECG, voice, and X-ray systems, and reviews AI models in diagnosing adult-onset dementia disorders.

Overall, this reprint aims to inspire researchers and healthcare professionals by showcasing the transformative potential of machine learning in healthcare. It hopes to encourage further research and collaboration to advance healthcare and technological innovations for a healthier future.



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