

*Special Issue Reprint*

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

[www.mdpi.com/books/reprint/7753](http://www.mdpi.com/books/reprint/7753)

Edited by

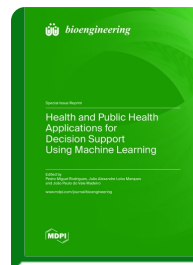
Pedro Miguel Rodrigues

João Alexandre Lobo Marques

João Paulo do Vale Madeiro

ISBN 978-3-0365-8549-9 (Hardback)

ISBN 978-3-0365-8548-2 (PDF)



"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.

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



## Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



## Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



## High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



## High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



## Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.