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Sommario/riassunto

OPTIMIZED PREDICTIVE MODELS IN HEALTH CARE USING MACHINE LEARNING This book is a comprehensive guide to developing and implementing optimized predictive models in healthcare using machine learning and is a required resource for researchers, healthcare professionals, and students who wish to know more about real-time applications. The book focuses on how humans and computers interact to ever-increasing levels of complexity and simplicity and provides content on the theory of optimized predictive model design, evaluation, and user diversity. Predictive modeling, a field of machine learning, has emerged as a powerful tool in healthcare for identifying high-risk patients, predicting disease progression, and optimizing treatment plans. By leveraging data from various sources, predictive models can help healthcare providers make informed decisions, resulting in better patient outcomes and reduced costs. Other essential features of the book include: provides detailed guidance on data collection and preprocessing, emphasizing the importance of collecting accurate and reliable data; explains how to transform raw data into meaningful features that can be used to improve the accuracy of predictive models; gives a detailed overview of machine learning algorithms for predictive modeling in healthcare, discussing the pros and cons of different algorithms and how to choose the best one for a specific application; emphasizes validating and evaluating predictive models; provides a comprehensive overview of validation and evaluation techniques and how to evaluate the performance of predictive models using a range of metrics; discusses the challenges and limitations of predictive modeling in healthcare; highlights the ethical and legal considerations that must be considered when developing predictive models and the potential biases that can arise in those models. Audience The book will be read by a wide range of professionals who are involved in healthcare, data science, and machine learning.