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Altri autori (Persone)	HassanMehedi BairagiAnupam Kumar
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Nota di contenuto	Fundamental Principles of Feature Fusion in Medical AI -- Data Preprocessing for Feature Synthesis in Medical AI -- Techniques for Selecting Features in Medical Data -- Dimensionality Reduction Techniques: Foundations and Applications in Medical Data Analysis -- Meta-Heuristic Algorithms for High-Dimensional Feature Selection.
Sommario/riassunto	This book delves into the fundamental concepts, methodologies, and practical implementations of feature fusion, providing valuable perspectives on how merging several data aspects might augment the decision-making skills of artificial intelligence. Feature fusion is inherently connected to the advancement of intelligent solutions from medical data as it enables the incorporation of various and complementary data sources to construct more advanced AI models. Within the medical domain, data manifests in diverse formats, including electronic health records (EHRs), medical imaging, genomic data, and real-time sensor metrics. Although each of these data kinds offers

distinct perspectives, they may have limitations in terms of their breadth or depth when considered independently. The application of feature fusion enables the integration of diverse data sources into a unified model, hence improving the AI's capacity to detect patterns, make precise predictions, and produce significant insights. The fusion process facilitates the development of intelligent solutions that exhibit enhanced reliability and effectiveness by using a more extensive reservoir of knowledge. For example, an artificial intelligence system that combines imaging data with clinical history might enhance the precision of disease diagnosis, forecast patient outcomes, and suggest tailored treatment strategies. Feature fusion is the crucial factor in unleashing the complete capabilities of medical data, enabling artificial intelligence to provide intelligent solutions that not only enhance the provision of healthcare but also stimulate advancements in medical research and practice. The proposed book explores the advanced notion of feature fusion within the field of artificial intelligence, with a particular emphasis on its implementation in physiological data. The integration of many data sources is crucial in the development of more precise, dependable, and understandable AI models as the healthcare industry becomes more data-driven.