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Nota di contenuto	AI in longevity -- Automated reporting of medical diagnostic imaging for early disease and aging biomarkers detection -- Risk forecasting tools based on the collected information for two types of occupational diseases -- Obtaining longevity footprints in DNA methylation data using different machine learning approaches -- The role of assistive technology in regulating the behavioural and psychological symptoms of dementia -- Epidemiology, genetics and epigenetics of Biological Aging: one or more aging systems? -- Temporal relation prediction from Electronic Health Records using Graph Neural Networks and

Transformers Embeddings -- In silico screening of life-extending drugs using machine learning and omics data -- An overview of kernel methods for identifying genetic association with health-related traits -- Artificial Intelligence approaches for skin anti-aging and skin resilience research -- AI in genomics and epigenomics -- The utility of information theory based methods in the research of agingand longevity -- AI for Longevity: getting past the Mechanical Turk model will take Good Data -- Leveraging algorithmic and human networks to cure human aging: Holistic understanding of Longevity via Generative Cooperative Networks, Hybrid Bayesian/Neural/Logical AI and Tokenomics-Mediated Crowdsourcing. .

Sommario/riassunto

This book reviews the state-of-the-art efforts to apply machine learning and AI methods for healthy aging and longevity research, diagnosis, and therapy development. The book examines the methods of machine learning and their application in the analysis of big medical data, medical images, the creation of algorithms for assessing biological age, and effectiveness of geroprotective medications. The promises and challenges of using AI to help achieve healthy longevity for the population are manifold. This volume, written by world-leading experts working at the intersection of AI and aging, provides a unique synergy of these two highly prominent fields and aims to create a balanced and comprehensive overview of the application methodology that can help achieve healthy longevity for the population. The book is accessible and valuable for specialists in AI and longevity research, as well as a wide readership, including gerontologists, geriatricians, medical specialists, andstudents from diverse fields, basic scientists, public and private research entities, and policy makers interested in potential intervention in degenerative aging processes using advanced computational tools. .