1. Record Nr. UNINA9910337950003321 Deep Learning: Fundamentals, Theory and Applications [[electronic **Titolo** resource] /] / edited by Kaizhu Huang, Amir Hussain, Qiu-Feng Wang, Rui Zhang Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa **ISBN** 3-030-06073-X Edizione [1st ed. 2019.] 1 online resource (VII, 163 p. 66 illus., 46 illus. in color.) Descrizione fisica Cognitive Computation Trends, , 2524-5341; ; 2 Collana 610 Disciplina Soggetti Medicine Artificial intelligence Algorithms Biomedicine, general Artificial Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Preface -- Introduction to Deep Density Models with Latent Variables Nota di contenuto -- Deep RNN Architecture: Design and Evaluation -- Deep Learning Based Handwritten Chinese Character and Text Recognition -- Deep Learning and Its Applications to Natural Language Processing -- Deep Learning for Natural Language Processing -- Oceanic Data Analysis with Deep Learning Models -- Index. The purpose of this edited volume is to provide a comprehensive Sommario/riassunto overview on the fundamentals of deep learning, introduce the widelyused learning architectures and algorithms, present its latest theoretical progress, discuss the most popular deep learning platforms and data sets, and describe how many deep learning methodologies have brought great breakthroughs in various applications of text, image, video, speech and audio processing. Deep learning (DL) has been widely considered as the next generation of machine learning methodology. DL attracts much attention and also achieves great success in pattern recognition, computer vision, data mining, and

knowledge discovery due to its great capability in learning high-level

abstract features from vast amount of data. This new book will not only attempt to provide a general roadmap or guidance to the current deep learning methodologies, but also present the challenges and envision new perspectives which may lead to further breakthroughs in this field. This book will serve as a useful reference for senior (undergraduate or graduate) students in computer science, statistics, electrical engineering, as well as others interested in studying or exploring the potential of exploiting deep learning algorithms. It will also be of special interest to researchers in the area of AI, pattern recognition, machine learning and related areas, alongside engineers interested in applying deep learning models in existing or new practical applications.