1. Record Nr. UNINA9910806195703321

Titolo	Internet of Things of Big Data for Healthcare : 5th International Workshop, IoTBDH 2023, Birmingham, UK, October 21–25, 2023, Proceedings / / edited by Jun Qi, Po Yang
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-52216-8
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (148 pages)
Collana	Communications in Computer and Information Science, , 1865-0937 ; ; 2019
Disciplina	610.28563
Soggetti	Artificial intelligence Computer engineering Computer networks Database management Computer systems Application software Artificial Intelligence Computer Engineering and Networks Database Management System Computer System Implementation Computer and Information Systems Applications Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Enhancing Search Engine Optimization in Healthcare and Clinical Domains with Natural Language Processing and Graph Techniques -- 1 Introduction -- 2 Literature Review -- 3 Data -- 4 Methods -- 4.1 Keyword Frequency and Network Analysis -- 4.2 Hierarchical Clustering and Topic Modeling -- 4.3 Page Clustering Using Graph Techniques -- 5 Results -- 5.1 Keyword Frequency and Network Analysis -- 5.2 Hierarchical Clustering -- 5.3 Topic Modeling -- 5.4 Page Clustering -- 6 Conclusion and Future Work -- References -- Evaluation of Integrated

XAI Frameworks for Explaining Disease Prediction Models in Healthcare -- 1 Introduction -- 1.1 Background -- 2 Literature Review -- 2.1 XAI Explanation Methods -- 2.2 XAI Explanation Algorithms -- 2.3 Integrated XAI Frameworks -- 3 Research Methodology -- 3.1 Dataset Description -- 3.2 Ethical Considerations -- 3.3 Design of Experiment -- 4 Results and Evaluation -- 4.1 Tabular Prediction and Explanation -- 4.2 Natural Language Processing Prediction &amp -- Explanation -- 4.3 Image Prediction and Explanation -- 5 Discussion -- 6 Conclusion -- References -- Zero-Shot Medical Information Retrieval via Knowledge Graph Embedding -- 1 Introduction -- 2 Related Work -- 2.1 Statistical Information Retrieval -- 2.2 Neural Information Retrieval -- 3 Methodology -- 3.1 Document Keyword Extraction -- 3.2 Medical Embedding Construction -- 3.3 Retrieval with Medical Knowledge -- 4 Results and Evaluation -- 4.1 Baseline Models -- 4.2 Main Results -- 4.3 Out-of-Vocabulary Strategy -- 4.4 Case Study -- 5 Conclusion and Future Work -- References -- Deep Recognition of Chinese Herbal Medicines Based on a Caputo Fractional Order Convolutional Neural Network -- 1 Introduction -- 2 Approach -- 3 Experiments -- 4 Conclusion -- References.
Randomized Multi-task Feature Learning Approach for Modelling and Predicting Alzheimer's Disease Progression -- 1 Introduction -- 2 Methodology -- 2.1 Subjects -- 2.2 Image Pre-processing -- 2.3 Regression Model via Structural Regularization -- 2.4 Multi-task Feature Learning -- 2.5 Randomize Multi-task Feature Learning -- 3 Experiment -- 3.1 Experiment Setup -- 3.2 Experiment i Prediction with Cerebral Cortex Features -- 3.3 Experiment ii Visually Stability Biomarkers -- 3.4 Experiment iii Evaluation Indicators -- 3.5 Experiment iv Repeated Experimental Times -- 3.6 Experiment v Size and Portion of Training Data -- 3.7 Experiment vi Number of Tasks in MTFL -- 4 Conclusion -- A Lasso and multi-task lasso -- B Pipeline -- C Repeated experiments times -- D Evaluation indicators -- References -- Adaptive Prior Correction in Alzheimer's Disease Spatio-Temporal Modeling via Multi-task Learning -- 1 Introduction -- 2 Methodology -- 2.1 Sparsity Adaptive Correction in Spatial Feature Connectivity Learning -- 2.2 Temporal Relation Adaptive Correction -- 2.3 Optimization of Sparse Spatial Feature Connectivity with Progression Adaptive-Correction Learning Model -- 3 Experiments -- 3.1 Experimental Setting -- 3.2 Identification of Structural Longitudinal MRI Biomarkers -- 4 Conclusions -- References --
An Electromyographic Signal Acquisition System for Sarcopenia -- 1 Introduction -- 2 Acquisition System -- 2.1 Acquisition Circuit -- 2.2 Electrode Attachment -- 3 Data Collection -- 4 Data Analysis -- 4.1 Preconditioning -- 4.2 Feature Extraction -- 4.3 Results -- 5 Conclusion -- References -- Machine Learning-Based Metabolic Syndrome Identification -- 1 Introduction -- 2 Datasets and Methods -- 2.1 Datasets -- 2.2 Methods -- 3 Results -- 4 Discussion -- References -- A Comparative Study of ResNet and DenseNet in the Diagnosis of Colitis Severity.
1 Introduction -- 2 Approach -- 2.1 The Diagnosis of Colitis Using a ResNet-Based Approach -- 2.2 The Diagnosis of Colitis Using a DenseNet-Based Approach -- 3 Experiments -- 4 Conclusion -- References -- Removal of EOG Artifact in Electroencephalography with EEMD-ICA: A Semi-simulation Study on Identification of Artifactual Components -- 1 Introduction -- 2 Methods -- 2.1 Blind Source Separation (BSS) -- 2.2 Independent Component Analysis (ICA) -- 2.3 Empirical Mode Decomposition (EMD) -- 2.4 EEMD-ICA -- 2.5 Description of Simulated EEG Data -- 3 Identification of Artifactual Components -- 3.1 Kurtosis and Entropy -- 3.2 Autocorrelation -- 3.3

Correlation with EOG Reference Channel -- 4 Results and Discussion -- 5 Conclusion -- References -- Representative UPDRS Features of Single Wearable Sensor for Severity Classification of Parkinson's Disease -- 1 Introduction -- 2 Methods -- 2.1 Data Acquisition -- 2.2 Data Preprocessing and Feature Extraction -- 2.3 Representative Feature Selection -- 3 Experimental Results -- 3.1 Representative Features -- 3.2 Sliding Window Size -- 3.3 Models -- 3.4 Feature Dimensions -- 4 Conclusion -- References -- Author Index.

Sommario/riassunto

This book constitutes the 5th International Workshop, IoTBDH 2023, held in Birmingham, UK, during October 21–25, 2023. The 7 full papers and 4 short papers included in this volume were carefully reviewed and selected from 33 submissions. They focus on the state-of-the-art research and applications in utilizing IoT and big data technology for healthcare by presenting efficient scientific and engineering solutions, addressing the needs and challenges for integration with new technologies, and providing visions for future research and development.