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Descrizione fisica	1 online resource (XII, 444 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 2734
Disciplina	006.3/1
Soggetti	Artificial intelligence Logic, Symbolic and mathematical Database management Information storage and retrieval Optical data processing Pattern perception Artificial Intelligence Mathematical Logic and Formal Languages Database Management Information Storage and Retrieval Image Processing and Computer Vision Pattern Recognition
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Talkes -- Introspective Learning to Build Case-Based Reasoning (CBR) Knowledge Containers -- Graph-Based Tools for Data Mining and Machine Learning -- Decision Trees -- Simplification Methods for Model Trees with Regression and Splitting Nodes -- Learning Multi-label Alternating Decision Trees from Texts and Data -- Khiops: A Discretization Method of Continuous Attributes with Guaranteed Resistance to Noise -- On the Size of a Classification Tree -- Clustering

and Its Applications -- A Comparative Analysis of Clustering Algorithms Applied to Load Profiling -- Similarity-Based Clustering of Sequences Using Hidden Markov Models -- Support Vector Machines -- A Fast Parallel Optimization for Training Support Vector Machine -- A ROC-Based Reject Rule for Support Vector Machines -- Case-Based Reasoning -- Remembering Similitude Terms in CBR -- Authoring Cases from Free-Text Maintenance Data -- Classification, Retrieval, and Feature Learning -- Classification Boundary Approximation by Using Combination of Training Steps for Real-Time Image Segmentation -- Simple Mimetic Classifiers -- Novel Mixtures Based on the Dirichlet Distribution: Application to Data and Image Classification -- Estimating a Quality of Decision Function by Empirical Risk -- Efficient Locally Linear Embeddings of Imperfect Manifolds -- Dissimilarity Representation of Images for Relevance Feedback in Content-Based Image Retrieval -- A Rule-Based Scheme for Filtering Examples from Majority Class in an Imbalanced Training Set -- Coevolutionary Feature Learning for Object Recognition -- Discovery of Frequently or Sequential Patterns -- Generalization of Pattern-Growth Methods for Sequential Pattern Mining with Gap Constraints -- Discover Motifs in Multi-dimensional Time-Series Using the Principal Component Analysis and the MDL Principle -- Optimizing Financial Portfolios from the Perspective of Mining Temporal Structures of Stock Returns -- Visualizing Sequences of Texts Using Collocational Networks -- Complexity Analysis of Depth First and FP-Growth Implementations of APRIORI -- Bayesian Models and Methods -- GO-SPADE: Mining Sequential Patterns over Datasets with Consecutive Repetitions -- Using Test Plans for Bayesian Modeling -- Using Bayesian Networks to Analyze Medical Data -- A Belief Networks-Based Generative Model for Structured Documents. An Application to the XML Categorization -- Neural Self-Organization Using Graphs -- Association Rules Mining -- Integrating Fuzziness with OLAP Association Rules Mining -- Discovering Association Patterns Based on Mutual Information -- Applications -- Connectionist Probability Estimators in HMM Arabic Speech Recognition Using Fuzzy Logic -- Shape Recovery from an Unorganized Image Sequence -- A Learning Autonomous Driver System on the Basis of Image Classification and Evolutional Learning -- Detecting the Boundary Curve of Planar Random Point Set -- A Machine Learning Model for Information Retrieval with Structured Documents.

Sommario/riassunto

TheInternationalConferenceonMachineLearningandDataMining(MLDM)is the third meeting in a series of biennial events, which started in 1999, organized by the Institute of Computer Vision and Applied Computer Sciences (IBaI) in Leipzig. MLDM began as a workshop and is now a conference, and has brought the topic of machine learning and data mining to the attention of the research community. Seventy-?ve papers were submitted to the conference this year. The program committeeworkedhardtoselectthemostprogressiveresearchinafairandc-petent review process which led to the acceptance of 33 papers for presentation at the conference. The 33 papers in these proceedings cover a wide variety of topics related to machine learning and data mining. The two invited talks deal with learning in case-based reasoning and with mining for structural data. The contributed papers can be grouped into nine areas: support vector machines; pattern dis-very; decision trees; clustering; classi?cation and retrieval; case-based reasoning; Bayesian models and methods; association rules; and applications. We would like to express our appreciation to the reviewers for their precise andhighlyprofessionalwork. WearegratefultotheGermanScienceFoundation for its support of the

Eastern European researchers. We appreciate the help and understanding of the editorial sta? at Springer Verlag, and in particular Alfred Hofmann, whosupportedthepublicationoftheseproceedingsintheLNAIseries. Last, but not least, we wish to thank all the speakers and participants who contributed to the success of the conference.