Image Classification Using Content Based Image Retrieval | bb4dab54b496f07a814e1508ff1c8fd3

Intelligent Computing Theories and Application
Diabetes and Fundus OCT
The Fusion of Internet of Things, Artificial Intelligence, and Cloud Computing in Health Care
Semantic Mining Technologies for Multimedia Databases
Deep Learning for Biomedical Data Analysis
Artificial Intelligence for Maximizing Content Based Image Retrieval
Proceedings of the First International Conference on Intelligent Human Computer Interaction
Soft Computing in Information Retrieval
Image Analysis And Recognition
Twin Support Vector Machines
Feature Dimension Reduction for Content-Based Image Identification
Pervasive Computing and Social Networking
Computer Analysis of Images and Patterns
Distributed Artificial Intelligence, Agent Technology, and Collaborative Applications
Content-based Microscopic Image Analysis
Intelligent Computing in Signal Processing and Pattern Recognition
Artificial Neural Networks: Formal Models and Their Applications – ICANN 2005
Advances in Computer Vision
Transactions on Computational Science XXIX
Proceedings of the International Conference on ISMATIC in Computational Vision and Bio-Engineering 2018 (ISMATIC-CVB)
Handbook of Deep Learning in Biomedical Engineering
Computing in Engineering and Technology
Content-Based Image Classification
Computing, Communication and Signal Processing
Image and Video Retrieval
Intelligent Imaging and Analysis
Content-based Image Retrieval Using Deep Learning
Data Analytics in Bioinformatics
Medical Content-Based Retrieval for Clinical Decision Support
Methods and Innovations for Multimedia Database Management
Content-Based Analysis of Digital Video
The 1st International Conference on Advanced Intelligent System and Informatics (AISI2015), November 28-30, 2015, Beni Suef, Egypt
Transactions on Computational Science XXXVII
Big
Intelligent Computing Theories and Applications Information retrieval (IR) aims at defining systems able to provide a fast and effective content-based access to a large amount of stored information. The aim of an IR system is to estimate the relevance of documents to users' information needs, expressed by means of a query. This is a very difficult and complex task, since it is pervaded with imprecision and uncertainty. Most of the existing IR systems offer a very simple model of IR, which privileges efficiency at the expense of effectiveness. A promising direction to increase the effectiveness of IR is to model the concept of "partially intrinsic" in the IR process and to make the systems adaptive, i.e. able to "learn" the user's concept of relevance. To this aim, the application of soft computing techniques can be of help to obtain greater flexibility in IR systems.

Diabetes and Fundus OCT The conference topics address different theoretical and practical aspects, and implementing solutions for intelligent systems and informatics disciplines including bioinformatics, computer science, medical informatics, biology, social studies, as well as robotics research. The conference also discuss and present solutions to the cloud computing and big data mining which are considered hot research topics. The conference papers discussed different topics - techniques, models, methods, architectures, as well as multi aspect, domain-
specific, and new solutions for the above disciplines. The accepted papers have been
grouped into five parts: Part I—Intelligent Systems and Informatics, addressing
topics including, but not limited to, medical application, predicting student
performance, action classification, and detection of dead stained microscopic cells,
optical character recognition, plant identification, rehabilitation of disabled
people. Part II—Hybrid Intelligent Systems, addressing topics including, but not
limited to, EMG signals, text classification, geomagnetic inverse problem, email
filtering. Part III—Multimedia Computing and Social Networks, addressing topics
including, but not limited to, augmented reality, telepresence robot, video flash
matting, community detection, quality images, face thermal image extraction, MRI
tumor segmentation. Part V—Cloud Computing and Big Data Mining, discussing topics
including, but not limited to, mining on microblogs, query optimization, big data
classification, access control, friendsourcing, and assistive technology. Part
VI—Swarm Optimization and Its Applications, addressing topics including, but not
limited to, solving set covering problem, adaptive PSO for CT liver segmentation,
water quality assessment, attribute reduction, fish detection, solving manufacturing
cell design problem.

The Fusion of Internet of Things, Artificial Intelligence, and Cloud Computing in
Health Care The three volume set LNAI 6096, LNAI 6097, and LNAI 6098 constitutes the
thoroughly refereed conference proceedings of the 23rd International Conference on
Industrial Engineering and Other Applications of Applied Intelligent Systems,
IEA/AIE 2010, held in Cordoba, Spain, in June 2010. The total of 119 papers selected
for the proceedings were carefully reviewed and selected from 297 submissions.

Semantic Mining Technologies for Multimedia Databases Imaging and analysis are
widely involved in various research fields, including biomedical applications, medical imaging and diagnosis, computer vision, autonomous driving, and robot controls. Imaging and analysis are now facing big changes regarding intelligence, due to the breakthroughs of artificial intelligence techniques, including deep learning. Many difficulties in image generation, reconstruction, de-noising skills, artifact removal, segmentation, detection, and control tasks are being overcome with the help of advanced artificial intelligence approaches. This Special Issue focuses on the latest developments of learning-based intelligent imaging techniques and subsequent analyses, which include photographic imaging, medical imaging, detection, segmentation, medical diagnosis, computer vision, and vision-based robot control. These latest technological developments will be shared through this Special Issue for the various researchers who are involved with imaging itself, or are using image data and analysis for their own specific purposes.

Deep Learning for Biomedical Data Analysis Image data has portrayed immense potential as a foundation of information for numerous applications. Recent trends in multimedia computing have witnessed a rapid growth in digital image collections, resulting in a need for increased image data management. Feature Dimension Reduction for Content-Based Image Identification is a pivotal reference source that explores the contemporary trends and techniques of content-based image recognition. Including research covering topics such as feature extraction, fusion techniques, and image segmentation, this book explores different theories to facilitate timely identification of image data and managing, archiving, maintaining, and extracting information. This book is ideally designed for engineers, IT specialists, researchers, academicians, and graduate-level students seeking interdisciplinary research on image processing and analysis.
Artificial Intelligence for Maximizing Content Based Image Retrieval This two-volume set LNCS 9771 and LNCS 9772 constitutes - in conjunction with the volume LNAI 9773 - the refereed proceedings of the 12th International Conference on Intelligent Computing, ICIC 2016, held in Lanzhou, China, in August 2016. The 221 full papers and 15 short papers of the three proceedings volumes were carefully reviewed and selected from 639 submissions. The papers are organized in topical sections such as signal processing and image processing; information security, knowledge discovery, and data mining; systems biology and intelligent computing in computational biology; intelligent computing in scheduling; information security; advances in swarm intelligence: algorithms and applications; machine learning and data analysis for medical and engineering applications; evolutionary computation and learning; independent component analysis; compressed sensing, sparse coding; social computing; neural networks; nature inspired computing and optimization; genetic algorithms; signal processing; pattern recognition; biometrics recognition; image processing; information security; virtual reality and human-computer interaction; healthcare informatics theory and methods; artificial bee colony algorithms; differential evolution; memetic algorithms; swarm intelligence and optimization; soft computing; protein structure and function prediction; advances in swarm intelligence: algorithms and applications; optimization, neural network, and signal processing; biomedical informatics and image processing; machine learning; knowledge discovery and natural language processing; nature inspired computing and optimization; intelligent control and automation; intelligent data analysis and prediction; computer vision; knowledge representation and expert system; bioinformatics.

Proceedings of the First International Conference on Intelligent Human Computer Interaction The digital revolution and the explosive growth of the internet have
helped the collection of huge amounts of useful data of diverse characteristics, which is a valuable and intangible asset in any business of today. This book treats the new, emerging discipline of soft computing, which exploits this data through tolerance for imprecision and uncertainty to achieve solutions for complex problems. Soft computing methodologies include fuzzy sets, neural networks, genetic algorithms, Bayesian belief networks and rough sets, which are explored in detail through case studies and in-depth research. The advent of soft computing marks a significant paradigm shift in computing, with a wide range of applications and techniques which are presented and discussed in the chapters of this book.

Soft Computing in Information Retrieval This book constitutes the refereed proceedings of the Second International Conference on Image Analysis and Recognition, ICIAR 2005, held in Toronto, Canada, in September 2005. The 153 revised full papers presented together with 2 invited papers were carefully reviewed and selected from 295 submissions. The papers are organized in topical sections on image segmentation, image and video processing and analysis, image and video coding, shape and matching, image description and recognition, image retrieval and indexing, 3D imaging, morphology, colour analysis, texture analysis, motion analysis, tracking, biomedical applications, face recognition and biometrics, image secret sharing, single-sensor imaging, and real-time imaging.

Image Analysis And Recognition This book constitutes the refereed proceedings of the Third MICCAI Workshop on Medical Content-Based Retrieval for Clinical Decision Support, M CBR-CBS 2012, held in Nice, France, in October 2012. The 10 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 15 submissions. The papers are divided on several topics on image analysis of
visual or multimodal medical data (X-ray, MRI, CT, echo videos, time series data), machine learning of disease correlations in visual or multimodal data, algorithms for indexing and retrieval of data from visual or multimodal medical databases, disease model-building and clinical decision support systems based on visual or multimodal analysis, algorithms for medical image retrieval or classification, systems of retrieval or classification using the ImageCLEF collection.

Twin Support Vector Machines Content-Based Analysis Of Digital Video focuses on fundamental issues underlying the development of content access mechanisms for digital video. It treats topics that are critical to successfully automating the video content extraction and retrieval processes, and includes coverage of: - Video parsing, - Video content indexing and representation, - Affective video content analysis. In this well illustrated book the author integrates related information currently scattered throughout the literature and combines it with new ideas into a unified theoretical approach to video content analysis. The material also suggests ideas for future research. Systems developers, researchers and students working in the area of content-based analysis and retrieval of video and multimedia in general will find this book invaluable.

Feature Dimension Reduction for Content-Based Image Identification This book offers an overview of traditional big visual data analysis approaches and provides state-of-the-art solutions for several scene comprehension problems, indoor/outdoor classification, outdoor scene classification, and outdoor scene layout estimation. It is illustrated with numerous natural and synthetic color images, and extensive statistical analysis is provided to help readers visualize big visual data distribution and the associated problems. Although there has been some research on
big visual data analysis, little work has been published on big image data
distribution analysis using the modern statistical approach described in this book.
By presenting a complete methodology on big visual data analysis with three
illustrative scene comprehension problems, it provides a generic framework that can
be applied to other big visual data analysis tasks.

Pervasive Computing and Social Networking Machine learning techniques are
increasingly being used to address problems in computational biology and
bioinformatics. Novel machine learning computational techniques to analyze high
throughput data in the form of sequences, gene and protein expressions, pathways,
and images are becoming vital for understanding diseases and future drug discovery.
Machine learning techniques such as Markov models, support vector machines, neural
networks, and graphical models have been successful in analyzing life science data
because of their capabilities in handling randomness and uncertainty of data noise
and in generalization. Machine Learning in Bioinformatics compiles recent approaches
in machine learning methods and their applications in addressing contemporary
problems in bioinformatics approximating classification and prediction of disease,
feature selection, dimensionality reduction, gene selection and classification of
microarray data and many more.

Computer Analysis of Images and Patterns This book highlights cutting-edge research
on various aspects of human–computer interaction (HCI). It includes selected
research papers presented at the Third International Conference on Computing,
Communication and Signal Processing (ICCAS 2018), organized by Dr. Babasaheb
Ambedkar Technological University in Lonere-Raigad, India on January 26–27, 2018. It
covers pioneering topics in the field of computer, electrical, and electronics
engineering, e.g. signal and image processing, RF and microwave engineering, and emerging technologies such as IoT, cloud computing, HCI, and green computing. As such, the book offers a valuable guide for all scientists, engineers and research students in the areas of engineering and technology.

Distributed Artificial Intelligence, Agent Technology, and Collaborative Applications This book provides a systematic and focused study of the various aspects of twin support vector machines (TWSVM) and related developments for classification and regression. In addition to presenting most of the basic models of TWSVM and twin support vector regression (TWSVR) available in the literature, it also discusses the important and challenging applications of this new machine learning methodology. A chapter on “Additional Topics” has been included to discuss kernel optimization and support tensor machine topics, which are comparatively new but have great potential in applications. It is primarily written for graduate students and researchers in the area of machine learning and related topics in computer science, mathematics, electrical engineering, management science and finance.

Content-based Microscopic Image Analysis This book reviews the convergence technologies like cloud computing, artificial intelligence (AI) and Internet of Things (IoT) in healthcare and how they can help all stakeholders in the healthcare sector. The book is a proficient guide on the relationship between AI, IoT and healthcare and gives examples into how IoT is changing all aspects of the healthcare industry. Topics include remote patient monitoring, the telemedicine ecosystem, pattern imaging analytics using AI, disease identification and diagnosis using AI, robotic surgery, prediction of epidemic outbreaks, and more. The contributors
include applications and case studies across all areas of computational intelligence in healthcare data. The authors also include workflow in IoT-enabled healthcare technologies and explore privacy and security issues in healthcare-based IoT. Covers concepts of artificial intelligence and applications of computational intelligence, IoT and cloud computing in medical domain; Discusses how the fusion of Internet of Things, AI and cloud computing help in diagnosis, prediction, and storage of medical records in health care domain; Includes case studies throughout on applications of computational intelligence in healthcare data.

Intelligent Computing in Signal Processing and Pattern Recognition

Artificial Neural Networks: Formal Models and Their Applications – ICANN 2005 Content-Based Image Classification: Efficient Machine Learning Using Robust Feature Extraction Techniques is a comprehensive guide to research with invaluable image data. Social Science Research Network has revealed that 65% of people are visual learners. Research data provided by Hyerle (2000) has clearly shown 90% of information in the human brain is visual. Thus, it is no wonder that visual information processing in the brain is 60,000 times faster than text-based information (3M Corporation, 2001). Recently, we have witnessed a significant surge in conversing with images due to the popularity of social networking platforms. The other reason for embracing usage of image data is the mass availability of high-resolution cellphone cameras. Wide usage of image data in diversified application areas including medical science, media, sports, remote sensing, and so on, has spurred the need for further research in optimizing archival, maintenance, and retrieval of appropriate image content to leverage data-driven decision-making. This book demonstrates several techniques of image processing to represent image data in
Read Book Image Classification Using Content Based Image Retrieval

a desired format for information identification. It discusses the application of
machine learning and deep learning for identifying and categorizing appropriate
image data helpful in designing automated decision support systems. The book offers
comprehensive coverage of the most essential topics, including: Image feature
extraction with novel handcrafted techniques (traditional feature extraction) Image
feature extraction with automated techniques (representation learning with CNNs)
Significance of fusion-based approaches in enhancing classification accuracy MATLAB®
codes for implementing the techniques Use of the Open Access data mining tool WEKA
for multiple tasks The book is intended for budding researchers, technocrats,
engineering students, and machine learning/deep learning enthusiasts who are willing
to start their computer vision journey with content-based image recognition. The
readers will get a clear picture of the essentials for transforming the image data
into valuable means for insight generation. Readers will learn coding techniques
necessary to propose novel mechanisms and disruptive approaches. The WEKA guide
provided is beneficial for those uncomfortable coding for machine learning
algorithms. The WEKA tool assists the learner in implementing machine learning
algorithms with the click of a button. Thus, this book will be a stepping-stone for
your machine learning journey. Please visit the author's website for any further
guidance at https://www.rikdas.com/

Advances in Computer Vision This book constitutes the refereed proceedings of the
Third International Conference on Image and Video Retrieval, CIVR 2004, held in
Dublin, Ireland in July 2004. The 31 revised full papers and 44 poster papers
presented were carefully reviewed and selected from 125 submissions. The papers are
organized in topical sections on image annotation and user searching, image and
video retrieval algorithms, person and event identification for retrieval, content-
based image and video retrieval, and user perspectives.

Transactions on Computational Science XXIX This book constitutes the refereed proceedings of the Second MICCAI Workshop on Medical Content-Based Retrieval for Clinical Decision Support, MCBR-CBS 2011, held in Toronto, Canada, in September 2011. The 11 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 17 submissions. The papers are divided on several topics on medical image retrieval with textual approaches, visual word based approaches, applications and multidimensional retrieval.

Proceedings of the International Conference on ISMAC in Computational Vision and Bio-Engineering 2018 (ISMAC-CVB) This book provides a thorough understanding of the integration of computational intelligence with information retrieval including content-based image retrieval using intelligent techniques, hybrid computational intelligence for pattern recognition, intelligent innovative systems, and protecting and analysing big data on cloud platforms. The book aims to investigate how computational intelligence frameworks are going to improve information retrieval systems. The emerging and promising state-of-the-art of human–computer interaction is the motivation behind this book. The book covers a wide range of topics, starting from the tools and languages of artificial intelligence to its philosophical implications, and thus provides a plethora of theoretical as well as experimental research, along with surveys and impact studies. Further, the book aims to showcase the basics of information retrieval and computational intelligence for beginners, as well as their integration, and challenge discussions for existing practitioners, including using hybrid application of augmented reality, computational intelligence techniques for recommendation systems in big data, and a fuzzy-based approach for
characterization and identification of sentiments.

Handbook of Deep Learning in Biomedical Engineering This volume is the first part of the two-volume proceedings of the International Conference on Artificial Neural Networks (ICANN 2005), held on September 11–15, 2005 in Warsaw, Poland, with several accompanying workshops held on September 15, 2005 at the Nicolaus Copernicus University, Toruń, Poland. The ICANN conference is an annual meeting organized by the European Neural Network Society in cooperation with the International Neural Network Society, the Japanese Neural Network Society, and the IEEE Computational Intelligence Society. It is the premier European event covering all topics concerned with neural networks and related areas. The ICANN series of conferences was initiated in 1991 and soon became the major European gathering for experts in those fields. In 2005 the ICANN conference was organized by the Systems Research Institute, Polish Academy of Sciences, Warsaw, Poland, and the Nicolaus Copernicus University, Toruń, Poland. From over 600 papers submitted to the regular sessions and some 10 special conference sessions, the International Program Committee selected – after a thorough peer-review process – about 270 papers for publication. The large number of papers accepted is certainly a proof of the vitality and attractiveness of the field of artificial neural networks, but it also shows a strong interest in the ICANN conferences.

Computing in Engineering and Technology Multimedia and its rich semantics are profligate in today’s digital environment. Databases and content management systems serve as essential tools to ensure that the endless supply of multimedia content are indexed and remain accessible to end users. Methods and Innovations for Multimedia Database Content Management highlights original research on new theories,
algorithms, technologies, system design, and implementation in multimedia data engineering and management with an emphasis on automatic indexing, tagging, high-order ranking, and rule mining. This book is an ideal resource for university researchers, scientists, industry professionals, software engineers and graduate students.

Content-Based Image Classification Diabetes and Fundus OCT brings together a stellar cast of authors who review the computer-aided diagnostic (CAD) systems developed to diagnose non-proliferative diabetic retinopathy in an automated fashion using Fundus and OCTA images. Academic researchers, bioengineers, new investigators and students interested in diabetes and retinopathy need an authoritative reference to bring this multidisciplinary field together to help reduce the amount of time spent on source-searching and instead focus on actual research and the clinical application. This reference depicts the current clinical understanding of diabetic retinopathy, along with the many scientific advances in understanding this condition. As the role of optical coherence tomography (OCT) in the assessment and management of diabetic retinopathy has become significant in understanding the micro-retinal relationships and the internal architecture of the retina, this information is more critical than ever. Includes unique information for academic clinicians, researchers and bioengineers Provides insights needed to understand the imaging modalities involved, the unmet clinical need that is being addressed, and the engineering and technical approaches applied Brings together details on the retinal vasculature in diabetics as imaged by optical coherence tomography angiography and automated detection of retinal disease

Computing, Communication and Signal Processing These are the proceedings of the
International Conference on ISMAC-CVB, held in Palladam, India, in May 2018. The book focuses on research to design new analysis paradigms and computational solutions for quantification of information provided by object recognition, scene understanding of computer vision and different algorithms like convolutional neural networks to allow computers to recognize and detect objects in images with unprecedented accuracy and to even understand the relationships between them. The proceedings treat the convergence of ISMAC in Computational Vision and Bioengineering technology and includes ideas and techniques like 3D sensing, human visual perception, scene understanding, human motion detection and analysis, visualization and graphical data presentation and a very wide range of sensor modalities in terms of surveillance, wearable applications, home automation etc. ISMAC-CVB is a forum for leading academic scientists, researchers and research scholars to exchange and share their experiences and research results about all aspects of computational vision and bioengineering.

Image and Video Retrieval In this dissertation, novel Content-based Microscopic Image Analysis (CBMIA) methods, including Weakly Supervised Learning (WSL), are proposed to aid biological studies. In a CBMIA task, noisy image, image rotation, and object recognition problems need to be addressed. To this end, the first approach is a general supervised learning method, which consists of image segmentation, shape feature extraction, classification, and feature fusion, leading to a semi-automatic approach. In contrast, the second approach is a WSL method, which contains Sparse Coding (SC) feature extraction, classification, and feature fusion, leading to a full-automatic approach. In this WSL approach, the problems of noisy image and object recognition are jointly resolved by a region-based classifier, and the image rotation problem is figured out through SC features. To
demonstrate the usefulness and potential of the proposed methods, experiments are implemented on different practical biological tasks, including environmental microorganism classification, stem cell analysis, and insect tracking.

Intelligent Imaging and Analysis The LNCS journal Transactions on Computational Science reflects recent developments in the field of Computational Science, conceiving the field not as a mere ancillary science but rather as an innovative approach supporting many other scientific disciplines. The journal focuses on original high-quality research in the realm of computational science in parallel and distributed environments, encompassing the facilitating theoretical foundations and the applications of large-scale computations and massive data processing. It addresses researchers and practitioners in areas ranging from aerospace to biochemistry, from electronics to geosciences, from mathematics to software architecture, presenting verifiable computational methods, findings and solutions and enabling industrial users to apply techniques of leading-edge, large-scale, high performance computational methods. This, the 25th issue of the Transactions on Computational Science journal, consists of two parts. Part I, which is guest edited by Khalid Saeed, Nabendu Chaki and Soharab Hossain Shaikh, covers the areas of computer vision, image processing for biometric security, information fusion, and Kinect activity recognition. The papers in Part II focus on optimization through novel methods for data fusion, clustering in WSN, fault-tolerance, probability, weight assignment and risk analysis.

Content-based Image Retrieval Using Deep Learning Deep learning (DL) is a method of machine learning, running over artificial neural networks, that uses multiple layers to extract high-level features from large amounts of raw data. DL methods apply
levels of learning to transform input data into more abstract and composite information. Handbook for Deep Learning in Biomedical Engineering: Techniques and Applications gives readers a complete overview of the essential concepts of DL and its applications in the field of biomedical engineering. DL has been rapidly developed in recent years, in terms of both methodological constructs and practical applications. DL provides computational models of multiple processing layers to learn and represent data with higher levels of abstraction. It is able to implicitly capture intricate structures of large-scale data and is ideally suited to many of the hardware architectures that are currently available. The ever-expanding amount of data that can be gathered through biomedical and clinical information sensing devices necessitates the development of machine learning and artificial intelligence techniques such as DL and convolutional neural networks to process and evaluate the data. Some examples of biomedical and clinical sensing devices that use DL include computed tomography (CT), magnetic resonance imaging (MRI), ultrasound, single photon emission computed tomography (SPECT), positron emission tomography (PET), magnetic particle imaging, electroencephalography/magnetoencephalography (EE/MEG), optical microscopy and tomography, photoacoustic tomography, electron tomography, and atomic force microscopy. Handbook for Deep Learning in Biomedical Engineering: Techniques and Applications provides the most complete coverage of DL applications in biomedical engineering available, including detailed real-world applications in areas such as computational neuroscience, neuroimaging, data fusion, medical image processing, neurological disorder diagnosis for diseases such as Alzheimer's, attention deficit hyperactivity disorder (ADHD), and autism spectrum disorder (ASD), tumor prediction, and translational multimodal imaging analysis. Presents a comprehensive handbook of the biomedical engineering applications of DL, including computational neuroscience, neuroimaging, time series data such as MRI, functional
MRI, CT, EEG, MEG, and data fusion of biomedical imaging data from disparate sources, such as X-Ray/CT. Helps readers understand key concepts in DL applications for biomedical engineering and health care, including manifold learning, classification, clustering, and regression in neuroimaging data analysis. Provides readers with key DL development techniques such as creation of algorithms and application of DL through artificial neural networks and convolutional neural networks. Includes coverage of key application areas of DL such as early diagnosis of specific diseases such as Alzheimer’s, ADHD, and ASD, and tumor prediction through MRI and translational multimodality imaging and biomedical applications such as detection, diagnostic analysis, quantitative measurements, and image guidance of ultrasonography.

Data Analytics in Bioinformatics "A content-based image retrieval (CBIR) system works on the low-level visual features of a user input query image, which makes it difficult for the users to formulate the query and also does not give satisfactory retrieval results. In the past image annotation was proposed as the best possible system for CBIR which works on the principle of automatically assigning keywords to images that help image retrieval users to query images based on these keywords. Image annotation is often regarded as the problem of image classification where images are represented by some low-level features and the mapping between low-level features and high-level concepts (class labels) is done by supervised learning algorithms. In a CBIR system learning of effective feature representations and similarity measures is very important for the retrieval performance. Semantic gap has been the key challenge for this problem. A semantic gap exists between low-level image pixels captured by machines and the high-level semantics perceived by humans. The recent successes of deep learning techniques especially Convolutional Neural
Read Book Image Classification Using Content Based Image Retrieval

Networks (CNN) in solving computer vision applications has inspired me to work on this thesis so as to solve the problem of CBIR using a dataset of annotated images."--Abstract.

Medical Content-Based Retrieval for Clinical Decision Support This 1179-page book assembles the complete contributions to the International Conference on Intelligent Computing, ICIC 2006: one volume of Lecture Notes in Computer Science (LNCS); one of Lecture Notes in Artificial Intelligence (LNAI); one of Lecture Notes in Bioinformatics (LNBI); and two volumes of Lecture Notes in Control and Information Sciences (LNCS). Include are 149 revised full papers, and a Special Session on Computing for Searching Strategies to Control Dynamic Processes.

Methods and Innovations for Multimedia Database Content Management The book is a collection of selected high quality research papers presented at the International Conference on Computing in Engineering and Technology (ICCET 2019), held on January 10-11, 2019 at Deogiri Institute of Engineering and Management Studies, Aurangabad, India. Focusing on frontier topics and next-generation technologies, it presents original and innovative research from academics, scientists, students, and engineers alike.

Content-Based Analysis of Digital Video This, the 29th issue of the Transactions on Computational Science journal, is comprised of seven full papers focusing on the area of secure communication. Topics covered include weak radio signals, efficient circuits, multiple antenna sensing techniques, modes of inter-computer communication and fault types, geometric meshes, and big data processing in distributed environments.
Read Book Image Classification Using Content Based Image Retrieval

The 1st International Conference on Advanced Intelligent System and Informatics (AISI2015), November 28-30, 2015, Beni Suef, Egypt Provides an introduction to recent techniques in multimedia semantic mining necessary to researchers new to the field.

Transactions on Computational Science XXV The two-volume set LNCS 6978 + 6979 constitutes the proceedings of the 16th International Conference on Image Analysis and Processing, ICIAP 2011, held in Ravenna, Italy, in September 2011. The total of 121 papers presented was carefully reviewed and selected from 175 submissions. The papers are divided into 10 oral sessions, comprising 44 papers, and three post sessions, comprising 77 papers. They deal with the following topics: image analysis and representation; image segmentation; pattern analysis and classification; forensics, security and document analysis; video analysis and processing; biometry; shape analysis; low-level color image processing and its applications; medical imaging; image analysis and pattern recognition; image and video analysis and processing and its applications.

Big Visual Data Analysis The two volume set LNCS 11678 and 11679 constitutes the refereed proceedings of the 18th International Conference on Computer Analysis of Images and Patterns, CAIP 2019, held in Salerno, Italy, in September 2019. The 106 papers presented were carefully reviewed and selected from 176 submissions The papers are organized in the following topical sections: Intelligent Systems; Real-time and GPU Processing; Image Segmentation; Image and Texture Analysis; Machine Learning for Image and Pattern Analysis; Data Sets and Benchmarks; Structural and Computational Pattern Recognition; Posters.
Soft Computing Applications for Database Technologies: Techniques and Issues

The International conference series on Computer Science, Engineering & Applications (ICCSEA) aims to bring together researchers and practitioners from academia and industry to focus on understanding computer science, engineering and applications and to establish new collaborations in these areas. The Second International Conference on Computer Science, Engineering & Applications (ICCSEA-2012), held in Delhi, India, during May 25-27, 2012 attracted many local and international delegates, presenting a balanced mixture of intellect and research both from the East and from the West. Upon a strenuous peer-review process the best submissions were selected leading to an exciting, rich and a high quality technical conference program, which featured high-impact presentations in the latest developments of various areas of computer science, engineering and applications research.

Computational Intelligence for Information Retrieval

This book presents a remarkable collection of chapters covering a wide range of topics in the areas of Computer Vision, both from theoretical and application perspectives. It gathers the proceedings of the Computer Vision Conference (CVC 2019), held in Las Vegas, USA from May 2 to 3, 2019. The conference attracted a total of 371 submissions from pioneering researchers, scientists, industrial engineers, and students all around the world. These submissions underwent a double-blind peer review process, after which 118 (including 7 poster papers) were selected for inclusion in these proceedings. The book’s goal is to reflect the intellectual breadth and depth of current research on computer vision, from classical to intelligent scope. Accordingly, its respective chapters address state-of-the-art intelligent methods and techniques for solving real-world problems, while also outlining future research directions. Topic areas covered include Machine Vision and Learning, Data Science,
Image Processing, Deep Learning, and Computer Vision Applications.

Image Analysis and Processing -- ICIA P 2011 Dear Reader! Welcome to the proceedings of the First International Conference on Intelligent Human Computer Interaction (IHCI 2009) organized by the Indian Institute of Information Technology Allahabad. This is the first International Conference focused on Human Computer Interaction being organized in India. There is an increased interest in the human factors issues of computer use with a number of systems. The conference aims to provide an excellent opportunity for the dissemination of interesting new research, discussion about them and the generation of new ideas in these areas. We planned to organize the conference around the following five tracks: Signal and Vision Processing Language Processing Cognitive modeling Sensors and Embedded systems for HCI Graphics, Animation and Gaming Graphics, Animation and Gaming, Signal and Vision Processing, Language Processing and Cognitive modeling attracted due attention in the conference program. Very few papers were submitted in Sensors and Embedded systems and Graphics and Animation. Language is the primary means of communication between humans though usually neglected from HCI perspective. It will be better if human-computer interaction can be done in the same model as human-human communication. This was the main motivation behind including Language Processing as a separate track in the conference. However, some of the papers could not really achieve the application aspect from the HCI perspective. We will improve on this point in the next conference.

Trends in Applied Intelligent Systems Discusses major aspects of content-based image retrieval (CBIR) using current technologies and applications within the artificial intelligence (AI) field.
Medical Content-Based Retrieval for Clinical Decision Support "This book is a catalyst for emerging research in intelligent information, specifically artificial intelligent technologies and applications to assist in improving productivity in many roles such as assistants to human operators and autonomous decision-making components of complex systems"--Provided by publisher.

Advances in Computer Science, Engineering and Applications This book is the first overview on Deep Learning (DL) for biomedical data analysis. It surveys the most recent techniques and approaches in this field, with both a broad coverage and enough depth to be of practical use to working professionals. This book offers enough fundamental and technical information on these techniques, approaches and the related problems without overcrowding the reader's head. It presents the results of the latest investigations in the field of DL for biomedical data analysis. The techniques and approaches presented in this book deal with the most important and/or the newest topics encountered in this field. They combine fundamental theory of Artificial Intelligence (AI), Machine Learning (ML) and DL with practical applications in Biology and Medicine. Certainly, the list of topics covered in this book is not exhaustive but these topics will shed light on the implications of the presented techniques and approaches on other topics in biomedical data analysis. The book finds a balance between theoretical and practical coverage of a wide range of issues in the field of biomedical data analysis, thanks to DL. The few published books on DL for biomedical data analysis either focus on specific topics or lack technical depth. The chapters presented in this book were selected for quality and relevance. The book also presents experiments that provide qualitative and quantitative overviews in the field of biomedical data analysis. The reader will require some familiarity with AI, ML and DL and will learn about techniques and
approaches that deal with the most important and/or the newest topics encountered in the field of DL for biomedical data analysis. He/she will discover both the fundamentals behind DL techniques and approaches, and their applications on biomedical data. This book can also serve as a reference book for graduate courses in Bioinformatics, AI, ML and DL. The book aims not only at professional researchers and practitioners but also graduate students, senior undergraduate students and young researchers. This book will certainly show the way to new techniques and approaches to make new discoveries.

Copyright code: bb4dab54b496f07a814e1508ff1c8fd3