A Region Growing Algorithm For Insar Phase Unwrapping

As recognized, adventure as skillfully as experience just about lesson, amusement, as with ease as settlement can be gotten by just checking out a book **A Region Growing Algorithm For Insar Phase Unwrapping** then it is not directly done, you could agree to even more roughly this life, approaching the world.

We give you this proper as skillfully as simple artifice to acquire those all. We allow A Region Growing Algorithm For Insar Phase Unwrapping and numerous books collections from fictions to scientific research in any way. among them is this A Region Growing Algorithm For Insar Phase Unwrapping that can be your partner.

A Region Growing Algorithm For Insar Phase Unwrapping ***2023-01-28***

YU COLEMAN

Image Processing and Pattern Recognition John Wiley & Sons
The three-volume set LNCS 11857, 11858, and 11859 constitutes the refereed proceedings of the Second Chinese Conference on Pattern Recognition and Computer Vision, PRCV 2019, held in Xi'an, China, in November 2019. The 165 revised full papers presented were carefully reviewed and selected from 412 submissions. The papers have been organized in the following topical sections: Part I: Object Detection, Tracking and Recognition, Part II: Image/Video Processing and Analysis, Part III: Data Analysis and Optimization.

Bone Segmentation from CT Scans Using Combined Region Growing and Edge Detection CRC Press
This book constitutes the refereed proceedings of the 12th Iberoamerican Congress on Pattern Recognition, CIARP 2007, held in Valparaiso, Chile, November 13-16, 2007. The 97 revised full papers presented together with four keynote articles were carefully reviewed and selected from 200 submissions. The papers cover ongoing research and mathematical methods for pattern recognition, image analysis, and applications in areas such as computer vision, robotics, industry and health.

A Practical Approach with Examples in Matlab Springer
The book is designed for end users in the field of digital imaging, who wish to update their skills and understanding with the latest techniques in image analysis. The book emphasizes the conceptual framework of image analysis and the effective use of image processing tools. It uses applications in a variety of fields to demonstrate and consolidate both specific and general concepts, and to build intuition, insight and understanding. Although the chapters are essentially self-contained they reference other chapters to form an integrated whole. Each chapter employs a pedagogical approach to ensure

conceptual learning before introducing specific techniques and “tricks of the trade”. The book concentrates on a number of current research applications, and will present a detailed approach to each while emphasizing the applicability of techniques to other problems. The field of topics is wide, ranging from compressive (non-uniform) sampling in MRI, through automated retinal vessel analysis to 3-D ultrasound imaging and more. The book is amply illustrated with figures and applicable medical images. The reader will learn the techniques which experts in the field are currently employing and testing to solve particular research problems, and how they may be applied to other problems.

Web, Artificial Intelligence and Network Applications Springer Science & Business Media

Intelligent autonomous systems are emerged as a key enabler for the creation of a new paradigm of services to humankind, as seen by the recent advancement of autonomous cars licensed for driving in our streets, of unmanned aerial and underwater vehicles carrying out hazardous tasks on-site, and of space robots engaged in scientific as well as operational missions, to list only a few. This book aims at serving the researchers and practitioners in related fields with a timely dissemination of the recent progress on intelligent autonomous systems, based on a collection of papers presented at the 12th International Conference on Intelligent Autonomous Systems, held in Jeju, Korea, June 26-29, 2012. With the theme of “Intelligence and Autonomy for the Service to Humankind, the conference has covered such diverse areas as autonomous ground, aerial, and underwater vehicles, intelligent transportation systems, personal/domestic service robots, professional service robots for surgery/rehabilitation, rescue/security and space applications, and intelligent autonomous systems for manufacturing and healthcare. This volume 2 includes contributions devoted to Service Robotics and Human-Robot Interaction and Autonomous Multi-Agent Systems and Life Engineering.

Region Competition Springer Nature

Following the success of the first edition, this thoroughly updated second edition of Image Processing: The Fundamentals will ensure that it remains the ideal text for anyone seeking an introduction to the essential concepts of image processing. New material includes image processing and colour, sine and cosine transforms, Independent Component Analysis (ICA), phase congruency and the monogenic signal and several other new topics. These updates are combined with coverage of classic topics in image processing, such as orthogonal transforms and image enhancement, making this a truly comprehensive text on the subject. Key features: Presents material at two levels of difficulty: the main text addresses the fundamental concepts and presents a broad view of image processing, whilst more advanced material is interleaved in boxes throughout the text, providing further reference for those who wish to examine each technique in depth. Contains a large number of fully worked out examples. Focuses on an understanding of how image processing methods work in practice. Illustrates complex algorithms on a step-by-step basis, and lists not only the good practices but also identifies the pitfalls in each case. Uses a clear question and answer

structure. Includes a CD containing the MATLAB® code of the various examples and algorithms presented in the book. There is also an accompanying website with slides available for download for instructors as a teaching resource. Image Processing: The Fundamentals, Second Edition is an ideal teaching resource for both undergraduate and postgraduate students. It will also be of value to researchers of various disciplines from medicine to mathematics with a professional interest in image processing

Image Processing Springer Nature

This volume presents the processing of the 15th ICMBE held from 4th to 7th December 2013, Singapore. Biomedical engineering is applied in most aspects of our healthcare ecosystem. From electronic health records to diagnostic tools to therapeutic, rehabilitative and regenerative treatments, the work of biomedical engineers is evident. Biomedical engineers work at the intersection of engineering, life sciences and healthcare. The engineers would use principles from applied science including mechanical, electrical, chemical and computer engineering together with physical sciences including physics, chemistry and mathematics to apply them to biology and medicine. Applying such concepts to the human body is very much the same concepts that go into building and programming a machine. The goal is to better understand, replace or fix a target system to ultimately improve the quality of healthcare. With this understanding, the conference proceedings offer a single platform for individuals and organizations working in the biomedical engineering related field to gather and network with each other in so doing create the catalyst for future development of biomedical engineering in Asia.

Fundamentals of Digital Image Processing Springer

The true revolution in the age of digital neuroanatomy is the ability to extensively quantify anatomical structures and thus investigate structure-function relationships in great detail. Large-scale projects were recently launched with the aim of providing infrastructure for brain simulations. These projects will increase the need for a precise understanding of brain structure, e.g., through statistical analysis and models. From articles in this Research Topic, we identify three main themes that clearly illustrate how new quantitative approaches are helping advance our understanding of neural structure and function. First, new approaches to reconstruct neurons and circuits from empirical data are aiding neuroanatomical mapping. Second, methods are introduced to improve understanding of the underlying principles of organization. Third, by combining existing knowledge from lower levels of organization, models can be used to make testable predictions about a higher-level organization where knowledge is absent or poor. This latter approach is useful for examining statistical properties of specific network connectivity when current experimental methods have not yet been able to fully reconstruct whole circuits of more than a few hundred neurons.

Second Chinese Conference, PRCV 2019, Xi'an, China, November 8–11, 2019, Proceedings, Part II Springer Nature

A unique collection of algorithms and lab experiments for practitioners and researchers of digital image processing technology With the field of digital image

processing rapidly expanding, there is a growing need for a book that would go beyond theory and techniques to address the underlying algorithms. Digital Image Processing Algorithms and Applications fills the gap in the field, providing scientists and engineers with a complete library of algorithms for digital image processing, coding, and analysis. Digital image transform algorithms, edge detection algorithms, and image segmentation algorithms are carefully gleaned from the literature for compatibility and a track record of acceptance in the scientific community. The author guides readers through all facets of the technology, supplementing the discussion with detailed lab exercises in EIKONA, his own digital image processing software, as well as useful PDF transparencies. He covers in depth filtering and enhancement, transforms, compression, edge detection, region segmentation, and shape analysis, explaining at every step the relevant theory, algorithm structure, and its use for problem solving in various applications. The availability of the lab exercises and the source code (all algorithms are presented in C-code) over the Internet makes the book an invaluable self-study guide. It also lets interested readers develop digital image processing applications on ordinary desktop computers as well as on Unix machines.

7th European Conference on Computer Vision, Copenhagen, Denmark, May 28-31, 2002, Proceedings, Part III John Wiley & Sons

Mathematical morphology (MM) is a theory for the analysis of spatial structures. It is called morphology since it aims at analysing the shape and form of objects, and it is mathematical in the sense that the analysis is based on set theory, topology, lattice algebra, random functions, etc. MM is not only a theory, but also a powerful image analysis technique. The purpose of the present book is to provide the image analysis community with a snapshot of current theoretical and applied developments of MM. The book consists of forty-five contributions classified by subject. It demonstrates a wide range of topics suited to the morphological approach.

The Fundamentals Springer Nature

Abstract: The detection of individual trees in a larch plantation could improve the management efficiency and production prediction. This study introduced a two-stage individual tree crown (ITC) segmentation method for airborne light detection and ranging (LiDAR) point clouds, focusing on larch plantation forests with different stem densities. The two-stage segmentation method consists of the region growing and morphology segmentation, which combines advantages of the region growing characteristics and the detailed morphology structures of tree crowns. The framework comprises five steps: (1) determination of the initial dominant segments using a region growing algorithm, (2) identification of segments to be redefined based on the 2D hull convex area of each segment, (3) establishment and selection of profiles based on the tree structures, (4) determination of the number of trees using the correlation coefficient of residuals between Gaussian fitting and the tree canopy shape described in each profile, and (5) k-means segmentation to obtain the point cloud of a single tree. The accuracy was evaluated in terms of correct matching, recall,

precision, and F-score in eight plots with different stem densities. Results showed that the proposed method significantly increased ITC detections compared with that of using only the region growing algorithm, where the correct matching rate increased from 73.5% to 86.1%, and the recall value increased from 0.78 to 0.89

The Kooshball Algorithm--a Ray Tracing Region Growing Algorithm for Medical Data Springer Science & Business Media

An example method for segmenting an object contained in an image includes receiving an image including a plurality of pixels , transforming a plurality of characteristics of a pixel into respective neutrosophic set domains , calculating a neutrosophic similarity score for the pixel based on the respective neutrosophic set domains for the characteristics of the pixel , segmenting an object from background of the image using a region growing algorithm based on the neutrosophic similarity score for the pixel , and receiving a margin adjustment related to the object segmented from the background of the image .

8th International Conference, ICIG 2015, Tianjin, China, August 13-16, 2015, Proceedings, Part I CRC Press

"During the last decades Computational Intelligence has emerged and showed its contributions in various broad research communities (computer science, engineering, finance, economic, decision making, etc.). This was done by proposing approaches and algorithms based either on turnkey techniques belonging to the large panoply of solutions offered by computational intelligence such as data mining, genetic algorithms, bio-inspired methods, Bayesian networks, machine learning, fuzzy logic, artificial neural networks, etc. or inspired by computational intelligence techniques to develop new ad-hoc algorithms for the problem under consideration. This volume is a comprehensive collection of extended contributions from the 4th International Conference on Computer Science and Its Applications (CIIA'2013) organized into four main tracks: Track 1: Computational Intelligence, Track 2: Security & Network Technologies, Track 3: Information Technology and Track 4: Computer Systems and Applications. This book presents recent advances in the use and exploitation of computational intelligence in several real world hard problems covering these tracks such as image processing, Arab text processing, sensor and mobile networks, physical design of advanced databases, model matching, etc. that require advanced approaches and algorithms borrowed from computational intelligence for solving them.

Precision agriculture '19 John Wiley & Sons

Premiering in 1990 in Antibes, France, the European Conference on Computer Vision, ECCV, has been held biennially at venues all around Europe. These conferences have been very successful, making ECCV a major event to the computer vision community. ECCV 2002 was the seventh in the series. The privilege of organizing it was shared by three universities: The IT University of Copenhagen, the University of Copenhagen, and Lund University, with the conference venue in Copenhagen. These universities lie¨ geographically close in the vivid Oresund region, which lies partly in Denmark and partly in Sweden, with the newly built bridge (opened summer 2000) crossing the sound that formerly divided the countries. We are very happy to report that this year's

conference attracted more papers than ever before, with around 600 submissions. Still, together with the conference board, we decided to keep the tradition of holding ECCV as a single track conference. Each paper was anonymously refereed by three different reviewers. For the nal selection, for the rst time for ECCV, a system with area chairs was used. These met with the program chairsinLundfortwodaysinFebruary2002tos electwhatbecame45oralpresentations and 181 posters.Also at this meeting the selection was made without knowledge of the authors'identity.

Techniques and Applications Springer

Image segmentation transforms pixel-level information from raw images to a higher level of abstraction in which related pixels are grouped into disjoint spatial regions. Such regions typically correspond to natural or man-made objects or structures, natural variations in land cover, etc. For many image interpretation tasks (such as land use assessment, automatic target cueing, defining relationships between objects, etc.), segmentation can be an important early step. Remotely sensed images (e.g., multi-spectral and hyperspectral images) often contain many spectral bands (i.e., multiple layers of 2D images). Multi-band images are important because they contain more information than single-band images. Objects or natural variations that are readily apparent in certain spectral bands may be invisible in 2D broadband images. In this paper, the classical region growing approach to image segmentation is generalized from single to multi-band images. While it is widely recognized that the quality of image segmentation is affected by which segmentation algorithm is used, this paper shows that algorithm parameter values can have an even more profound effect. A novel self-calibration framework is developed for automatically selecting parameter values that produce segmentations that most closely resemble a calibration edge map (derived separately using a simple edge detector). Although the framework is generic in the sense that it can imbed any core segmentation algorithm, this paper only demonstrates self-calibration with multi-band region growing. The framework is applied to a variety of AVIRIS image blocks at different spectral resolutions, in an effort to assess the impact of spectral resolution on segmentation quality. The image segmentations are assessed quantitatively, and it is shown that segmentation quality does not generally appear to be highly correlated with spectral resolution.

Springer

This book presents high-quality, peer-reviewed papers from the International Conference on "Innovations in Computational Intelligence and Computer Vision (ICICV 2020)," hosted by Manipal University Jaipur, Rajasthan, India, on January 17–19, 2020. Offering a collection of innovative ideas from researchers, scientists, academics, industry professionals and students, the book covers a variety of topics, such as artificial intelligence and computer vision, image processing and video analysis, applications and services of artificial intelligence and computer vision, interdisciplinary areas combining artificial intelligence and computer vision, and other innovative practices.

A Region Growing Algorithm for Estimating Freeway Traffic Speed from Single Loop Traffic Detectors Springer Nature

A Region Growing Algorithm for the Digital Image Segmentation of Breast Duct Pathological Slides at 40xLearning the Parameters for a Region Growing Algorithm Using Cultural AlgorithmsThe 15th International Conference on Biomedical EngineeringICBME 2013, 4th to 7th December 2013, SingaporeSpringer Science & Business Media

Uncertainty Modeling Springer

This is an introductory to intermediate level text on the science of image processing, which employs the Matlab programming language to illustrate some of the elementary, key concepts in modern image processing and pattern recognition. The approach taken is essentially practical and the book offers a framework within which the concepts can be understood by a series of well chosen examples, exercises and computer experiments, drawing on specific examples from within science, medicine and engineering. Clearly divided into eleven distinct chapters, the book begins with a fast-start introduction to image processing to enhance the accessibility of later topics. Subsequent chapters offer increasingly advanced discussion of topics involving more challenging concepts, with the final chapter looking at the application of automated image classification (with Matlab examples) . Matlab is frequently used in the book as a tool for demonstrations, conducting experiments and for solving problems, as it is both ideally suited to this role and is widely available. Prior experience of Matlab is not required and those without access to Matlab can still benefit from the independent presentation of topics and numerous examples. Features a companion website www.wiley.com/go/solomon/fundamentals containing a Matlab fast-start primer, further exercises, examples, instructor resources and accessibility to all files corresponding to the examples and exercises within the book itself. Includes numerous examples, graded exercises and computer experiments to support both students and instructors alike.

Remote Sensing Handbook - Three Volume Set Springer Science & Business Media

This volume comprises the proceedings of the International Conference on Computational Intelligence 2015 (ICCI15). This book aims to bring together work from leading academicians, scientists, researchers and research scholars from across the globe on all aspects of computational intelligence. The work is composed mainly of original and unpublished results of conceptual, constructive, empirical, experimental, or theoretical work in all areas of computational intelligence. Specifically, the major topics covered include classical computational intelligence models and artificial intelligence, neural networks and deep learning, evolutionary swarm and particle algorithms, hybrid systems optimization, constraint programming, human-machine interaction, computational intelligence for the web analytics, robotics, computational neurosciences, neurodynamics, bioinspired and biomorphic algorithms, cross disciplinary topics and applications. The contents of this volume will be of use to researchers and professionals alike.

International Conference on Computing, Electronics and Electrical Technologies (ICCEET), 2012 Wageningen Academic Publishers

This book commemorates the 65th birthday of Dr. Boris Kovalerchuk, and

reflects many of the research areas covered by his work. It focuses on data processing under uncertainty, especially fuzzy data processing, when uncertainty comes from the imprecision of expert opinions. The book includes 17 authoritative contributions by leading experts.

A Region Growing Algorithm for the Digital Image Segmentation of Breast Duct Pathological Slides at 40x Infinite Study

This book constitutes the refereed proceedings of the Second International Conference on Futuristic Trends in Network and Communication Technologies, FTNCT 2019, held in Chandigarh, India, in November 2019. The 49 revised full papers and 6 short papers presented were carefully reviewed and selected from 226 submissions. The prime aim of the conference is to invite researchers from different domains of network and communication technologies to a single platform to showcase their research ideas. The selected papers are organized in topical sections on network and computing technologies; wireless networks and Internet of Things (IoT); futuristic computing technologies; communication technologies, security and privacy.