

# Image Resize Bicubic Matlab Code

Advances in Multimedia Information Processing -- PCM 2015  
 Applied Medical Image Processing  
 Feature Detectors and Motion Detection in Video Processing  
 Perception of visual advertising in different media: from attention to distraction, persuasion, preference and memory  
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 Fundamentals of Image, Audio, and Video Processing Using MATLAB®  
 Computer Vision - ACCV 2010  
 Computer Vision: Concepts, Methodologies, Tools, and Applications  
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 Introduction to Digital Holography  
 Data Compression  
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 Journal of Dong Hua University  
 Embedded Image Processing on the TMS320C6000TM DSP  
 Topology of Digital Images  
 Pattern Recognition  
 ICT and Critical Infrastructure: Proceedings of the 48th Annual Convention of Computer Society of India- Vol II  
 Computer Vision – ECCV 2020 Workshops  
 Dr. Dobb's Journal  
 Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications  
 What makes written words so special to the brain?  
 Spline and Spline Wavelet Methods with Applications to Signal and Image Processing  
 Visual Psychophysics  
 Computer Vision – ECCV 2022  
 F/A-18 Performance Benefits Measured During the Autonomous Formation Flight Project  
 Digital Image Interpolation in Matlab  
 Digital Image Processing using SCILAB  
 Final Program and Proceedings  
 'Fundamentals of Image, Audio, and Video Processing Using MATLAB®' and 'Fundamentals of Graphics Using MATLAB®'  
 Computer Vision -- ECCV 2014  
 Biosignal and Medical Image Processing  
 Biomedical Image Registration  
 IT Convergence and Security 2012

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### Advances in Multimedia Information Processing -- PCM 2015 Springer

Relying heavily on MATLAB® problems and examples, as well as simulated data, this text/reference surveys a vast array of signal and image processing tools for biomedical applications, providing a working knowledge of the technologies addressed while showcasing valuable implementation procedures, common pitfalls, and essential application concepts. The first and only textbook to supply a hands-on tutorial in biomedical signal and image processing, it offers a unique and proven approach to signal processing instruction, unlike any other competing source on the topic. The text is accompanied by a CD with support data files and software including all MATLAB examples and figures found in the text.

### Applied Medical Image Processing CRC Press

This is an application-oriented book includes debugged & efficient C implementations of real-world algorithms, in a variety of languages/environments, offering unique coverage of embedded image processing. covers TI technologies and applies them to an important market (important: features the C6416 DSK) Also covers the EVM should not be lost, especially the C6416 DSK, a much more recent DSP. Algorithms treated here are frequently missing from other image processing texts, in particular Chapter 6 (Wavelets), moreover, efficient fixed-point implementations of wavelet-based algorithms also treated. Provide numerous Visual Studio .NET 2003 C/C++ code, that show how to use MFC, GDI+, and the Intel IPP library to prototype image processing applications

### Feature Detectors and Motion Detection in Video Processing CRC Press

"Digital signal transforms are of a fundamental value in digital signal and image processing. Their role is manifold. Transforms selected appropriately enable substantial compressing signals and images for storage and transmission. No signal recovery, image reconstruction and restoration task can be efficiently solved without using digital signal transforms. Transforms are successfully used for logic design and digital data encryption. Fast transforms are the main tools for acceleration of computations in digital signal and image processing. The volume collects in one book most recent developments in the theory and practice of the design and usage of transforms in digital signal and image processing. It emerged from the series of reports published by Tampere International Centre for Signal Processing, Tampere University of Technology. For the volume, all contributions are appropriately updated to represent the state of the art in the field and to cover the most recent developments in different aspects of the theory and applications of transforms. The book consists of two parts that represent two major directions in the field: development of new transforms and development of transform based signal and image processing algorithms. The first part contains four chapters devoted to recent advances in transforms for image compression and switching and logic design and to new fast transforms for digital holography and tomography. In the second part, advanced transform based signal and image algorithms are considered: signal and image local adaptive restoration methods and two complementing families of signal and image re-sampling algorithms, fast transform based discrete sinc-interpolation and spline theory based ones."-- Publisher.

*Perception of visual advertising in different media: from attention to distraction, persuasion, preference and memory* Springer

This book provides basic theories and implementations using SCILAB open-source software for digital images. The book simplifies image processing theories and well as implementation of image processing algorithms, making it accessible to those with basic knowledge of image processing. This book includes many SCILAB programs at the end of each theory, which help in understanding concepts. The book includes more than sixty SCILAB programs of the image processing theory. In

the appendix, readers will find a deeper glimpse into the research areas in the image processing.

*GPU Programming in MATLAB* John Wiley & Sons

Reading is an integral part of life in today's information-driven societies. Since the pioneering work of Dejerine on "word blindness" in brain-lesioned patients, the literature has increased exponentially, from neuropsychological case reports to mechanistic accounts of word processing at the behavioural, neurofunctional and computational levels, tapping into diverse aspects of visual word processing. These studies have revealed some exciting findings about visual word processing, including how the brain learns to read, how changes in literacy impact upon word processing strategies, and whether word processing mechanisms vary across different alphabetic, logographic or artificial writing systems. Other studies have attempted to characterise typical and atypical word processes in special populations in order to explain why dyslexic brains struggle with words, how multilingualism changes the way our brains see words, and what the exact developmental signatures are that would shape the acquisition of reading skills. Exciting new insights have also emerged from recent studies that have investigated word stimuli at the system/network level, by looking for instance, at how the reading system interacts with other cognitive systems in a context-dependent fashion, how visual language stimuli are integrated into the speech processing streams, how both left and right hemispheres cooperate and interact during word processing, and what the exact contributions of subcortical and cerebellar regions to reading are. The contributions to this Research Topic highlight the latest findings regarding the different issues mentioned above, particularly how these findings can explain or model the different processes, mechanisms, pathways or cognitive strategies by which the human brain sees words. The introductory editorial, summarising the contributions included here, highlights how varieties of behavioural tests and neuroimaging techniques can be used to investigate word processing mechanisms across different alphabetic and logographic writing systems.

*Computational Fourier Optics* BoD - Books on Demand

GPU programming in MATLAB is intended for scientists, engineers, or students who develop or maintain applications in MATLAB and would like to accelerate their codes using GPU programming without losing the many benefits of MATLAB. The book starts with coverage of the Parallel Computing Toolbox and other MATLAB toolboxes for GPU computing, which allow applications to be ported straightforwardly onto GPUs without extensive knowledge of GPU programming. The next part covers built-in, GPU-enabled features of MATLAB, including options to leverage GPUs across multicore or different computer systems. Finally, advanced material includes CUDA code in MATLAB and optimizing existing GPU applications. Throughout the book, examples and source codes illustrate every concept so that readers can immediately apply them to their own development. Provides in-depth, comprehensive coverage of GPUs with MATLAB, including the parallel computing toolbox and built-in features for other MATLAB toolboxes Explains how to accelerate computationally heavy applications in MATLAB without the need to re-write them in another language Presents case studies illustrating key concepts across multiple fields Includes source code, sample datasets, and lecture slides

*Advances in Visual Computing* CRC Press

Video is one of the most important forms of multimedia available, as it is utilized for security purposes, to transmit information, promote safety, and provide entertainment. As motion is the most integral element in videos, it is important that motion detection systems and algorithms meet specific requirements to achieve accurate detection of real time events. Feature Detectors and Motion Detection in Video Processing explores innovative methods and approaches to analyzing and retrieving video images. Featuring empirical research and significant frameworks regarding feature detectors and descriptor algorithms, the book is a critical reference source for professionals, researchers, advanced-level students, technology developers, and academicians.

*Fundamentals of Image, Audio, and Video Processing Using MATLAB®* Springer Science & Business Media

The two-volume set CCIS 662 and CCIS 663 constitutes the refereed proceedings of the 7th Chinese Conference on Pattern Recognition, CCPR 2016, held in Chengdu, China, in November 2016. The 121 revised papers presented in two volumes were carefully reviewed and selected from 199 submissions. The papers are organized in topical sections on robotics; computer vision; basic theory of pattern recognition; image and video processing; speech and language; emotion recognition.

*Computer Vision - ACCV 2010* Springer

MATLAB is an indispensable asset for scientists, researchers, and engineers. The richness of the MATLAB computational environment combined with an integrated development environment (IDE) and straightforward interface, toolkits, and simulation and modeling capabilities, creates a research and development tool that has no equal. From quick code prototyping to full blown deployable applications, MATLAB stands as a de facto development language and environment serving the technical needs of a wide range of users. As a collection of diverse applications, each book chapter presents a novel application and use of MATLAB for a specific result.

**Computer Vision: Concepts, Methodologies, Tools, and Applications** Bentham Science Publishers

The fields of computer vision and image processing are constantly evolving as new research and applications in these areas emerge. Staying abreast of the most up-to-date developments in this field is necessary in order to promote further research and apply these developments in real-world settings. *Computer Vision: Concepts, Methodologies, Tools, and Applications* is an innovative reference source for the latest academic material on development of computers for gaining understanding about videos and digital images. Highlighting a range of topics, such as computational models, machine learning, and image processing, this multi-volume book is ideally designed for academicians, technology professionals, students, and researchers interested in uncovering the latest innovations in the field.

*Advanced Imaging Methods in Neuroscience* CRC Press

*Image Processing with MATLAB: Applications in Medicine and Biology* explains complex, theory-laden topics in image processing through examples and MATLAB algorithms. It describes classical as well as emerging areas in image processing and analysis. Providing many unique MATLAB codes and functions throughout, the book covers the theory of probability and

**Practical Image and Video Processing Using MATLAB** Springer Nature

This book constitutes the refereed proceedings of the 19th Iberoamerican Congress on Pattern Recognition, CIARP 2014, held in Puerto Vallarta, Jalisco, Mexico, in November 2014. The 115 papers presented were carefully reviewed and selected from 160 submissions. The papers are organized in topical sections on image coding, processing and analysis; segmentation, analysis of shape and texture; analysis of signal, speech and language; document processing and recognition; feature extraction, clustering and classification; pattern recognition and machine learning; neural networks for pattern recognition; computer vision and robot vision; video segmentation and tracking.

*Advances in Signal Transforms* SPIE-International Society for Optical Engineering

The 39-volume set, comprising the LNCS books 13661 until 13699, constitutes the refereed proceedings of the 17th European Conference on Computer Vision, ECCV 2022, held in Tel Aviv, Israel, during October 23–27, 2022. The 1645 papers presented in these proceedings were carefully reviewed and selected from a total of 5804 submissions. The papers deal with topics such as computer vision; machine learning; deep neural networks; reinforcement learning; object recognition; image classification; image processing; object detection; semantic segmentation; human pose estimation; 3d reconstruction; stereo vision; computational photography; neural networks; image coding; image reconstruction; object recognition; motion estimation.

**Image Processing with MATLAB** Springer

This book provides a comprehensive reference for the many different types and methods of compression. Included are a detailed and helpful taxonomy, analysis of most common methods, and discussions on the use and comparative benefits of methods and description of "how to" use them. Detailed descriptions and explanations of the most well-known and frequently used compression methods are covered in a self-contained fashion, with an accessible style and technical level for specialists and nonspecialists. Comments and suggestions of many readers have been included as a benefit to future readers, and a website is maintained and updated by the author.

**MATLAB** Springer

This book provides a practical guide, complete with accompanying Matlab software, to many different types of polynomial and discrete splines and spline-based wavelets, multiwavelets and wavelet frames in signal and image processing applications. In self-contained form, it briefly outlines a broad range of polynomial and discrete splines with equidistant nodes and their signal-processing-relevant properties. In particular, interpolating, smoothing, and shift-orthogonal splines are presented.

**Denoising of Photographic Images and Video** Springer

The 6-volume set, comprising the LNCS books 12535 until 12540, constitutes the refereed proceedings of 28 out of the 45 workshops held at the 16th European Conference on Computer Vision, ECCV 2020. The conference was planned to take place in Glasgow, UK, during August 23–28, 2020, but changed to a virtual format due to the COVID-19 pandemic. The 249 full papers, 18 short papers, and 21 further contributions included in the workshop proceedings were carefully reviewed and selected from a total of 467 submissions. The papers deal with diverse computer vision topics. Part III includes the Advances in Image Manipulation Workshop and Challenges.

*Introduction to Digital Holography* Springer Science & Business Media

This Research Topic aims to showcase the state of the art in visual advertising research. Although visual processes are a central component of consumer behavior, they have been largely neglected in models explaining consumer perception of advertising. Rather than being the mere input into the cognitive or affective systems, the visual processes both voluntarily and involuntarily affect the amount and quality of information that is passed into further mental processing. Moreover, advertisements provide a well- designed, rich and stimulating environment to study visual processes in real-life conditions. Consumers encounter thousands of advertisement messages per day. Previous research on visual perception of advertising mostly considers print advertising. However,

advertising messages increasingly appear in a variety of formats and in different media. Part of these messages are still conveyed through traditional media, such as newspapers, magazines, television, as well as outdoor and supermarket advertising. In addition, the amount and diversity of visual marketing stimuli is rapidly growing in terms of different advertising formats appearing in online and social media, smartphones and tablets. This challenges the marketing professionals and academics to better understand the impact of marketing on consumers. At the same time, the technical development of the research methods allows better opportunities to investigate advertising perception in different environments. Traditionally, papers investigating the psychological processes underlying advertising perception are published in journals widespread across different disciplines, such as marketing, applied psychology and human computer interaction journals. With this Research Topic, we aim to create a forum in which experts in different fields define the state of the art and future directions of the research on the visual aspects of marketing. We include reviews and original research papers involving both empirical and theoretical studies on visual perception of advertising across different media.

**Data Compression** CRC Press

Based on the authors' decades-long tenure in clinical environments and their extensive teaching experience, *Applied Medical Image Processing: A Basic Course* introduces the basic methods in applied image processing without assuming that readers have extensive prior knowledge beyond basic applied mathematics, physics, and programming. Illustrated with simple, well-commented MATLAB® examples, the book's tangible and accessible presentation demonstrates real-life applications. The rapid evolution of radiological imaging in the past four decades has brought medical image processing into the forefront as an essential tool for clinical research, a crucial component of modern diagnostics, and an indispensable element the actual treatment of diseases. A hands-on introduction to the basic image processing algorithms used in clinical routine applications, *Applied Medical Image Processing: A Basic Course* closes the gap between basic engineering knowledge such as simple programming and applied mathematics on the one hand, and the general understanding of a science that affects the health of a broad public.

**Digital Image Processing** Springer

*Fundamentals of Image, Audio, and Video Processing Using MATLAB®* introduces the concepts and principles of media processing and its applications in pattern recognition by adopting a hands-on approach using program implementations. The book covers the tools and techniques for reading, modifying, and writing image, audio, and video files using the data analysis and visualization tool MATLAB®. Key Features: Covers fundamental concepts of image, audio, and video processing Demonstrates the use of MATLAB® on solving problems on media processing Discusses important features of Image Processing Toolbox, Audio System Toolbox, and Computer Vision Toolbox MATLAB® codes are provided as answers to specific problems Illustrates the use of Simulink for audio and video processing Handles processing techniques in both the Spatio-Temporal domain and Frequency domain This is a perfect companion for graduate and post-graduate students studying courses on image processing, speech and language processing, signal processing, video object detection and tracking, and related multimedia technologies, with a focus on practical implementations using programming constructs and skill developments. It will also appeal to researchers in the field of pattern recognition, computer vision and content-based retrieval, and for students of MATLAB® courses dealing with media processing, statistical analysis, and data visualization. Dr. Ranjan Parekh, PhD (Engineering), is Professor at the School of Education Technology, Jadavpur University, Calcutta, India, and is involved with teaching subjects related to Graphics and Multimedia at the post-graduate level. His research interest includes multimedia information processing, pattern recognition, and computer vision.

*Journal of Dong Hua University* Frontiers Media SA

This unique text/reference presents a detailed review of noise removal for photographs and video. An international selection of expert contributors provide their insights into the fundamental challenges that remain in the field of denoising, examining how to properly model noise in real scenarios, how to tailor denoising algorithms to these models, and how to evaluate the results in a way that is consistent with perceived image quality. The book offers comprehensive coverage from problem formulation to the evaluation of denoising methods, from historical perspectives to state-of-the-art algorithms, and from fast real-time techniques that can be implemented in-camera to powerful and computationally intensive methods for off-line processing. Topics and features: describes the basic methods for the analysis of signal-dependent and correlated noise, and the key concepts underlying sparsity-based image denoising algorithms; reviews the most successful variational approaches for image reconstruction, and introduces convolutional neural network-based denoising methods; provides an overview of the use of Gaussian priors for patch-based image denoising, and examines the potential of internal denoising; discusses selection and estimation strategies for patch-based video denoising, and explores how noise enters the imaging pipeline; surveys the properties of real camera noise, and outlines a fast approximation of nonlocal means filtering; proposes routes to improving denoising results via indirectly denoising a transform of the image, considering the right noise model and taking into account the perceived quality of the outputs. This concise and clearly written volume will be of great value to researchers and professionals working in image processing and computer vision. The book will also serve as an accessible reference for advanced undergraduate and graduate students in computer science, applied mathematics, and related fields. "The relentless quest for higher image resolution, greater ISO sensitivity, faster frame rates and smaller imaging sensors in digital imaging and videography has demanded unprecedented innovation and improvement in noise reduction technologies. This book provides a comprehensive treatment of all aspects of image noise including noise modelling, state of the art noise reduction technologies and visual perception and quantitative evaluation of noise." Geoff Woolfe, Former President of The Society for Imaging Science and Technology. "This book on denoising of photographic images and video is the most comprehensive and up-to-date account of this deep and classic problem of image processing. The progress on its solution is being spectacular. This volume therefore is a must read for all engineers and researchers concerned with image and video quality." Jean-Michel Morel, Professor at Ecole Normale Supérieure de Cachan, France.