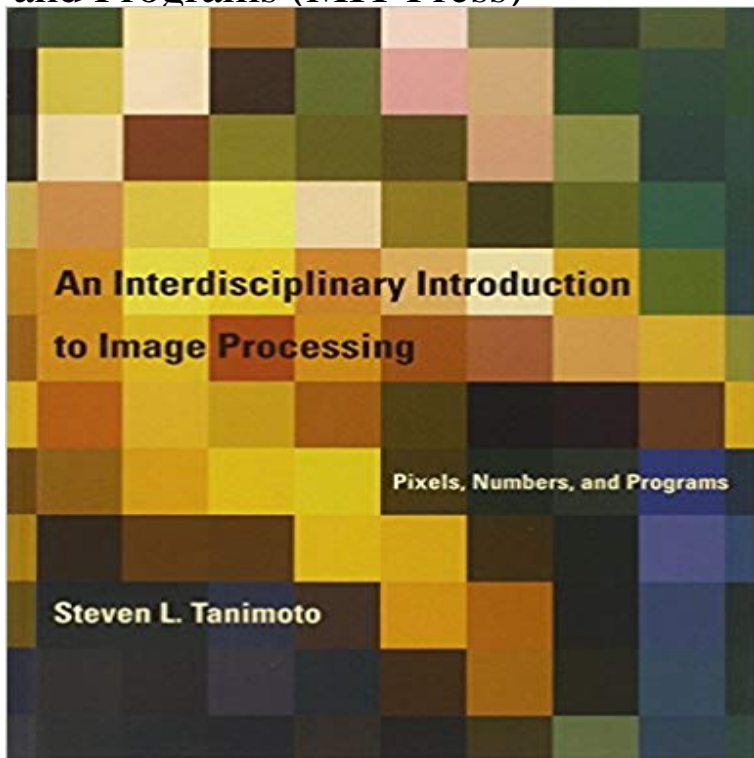


An Interdisciplinary Introduction to Image Processing: Pixels, Numbers, and Programs (MIT Press)



This book explores image processing from several perspectives: the creative, the theoretical (mainly mathematical), and the programmatical. It explains the basic principles of image processing, drawing on key concepts and techniques from mathematics, psychology of perception, computer science, and art, and introduces computer programming as a way to get more control over image processing operations. It does so without requiring college-level mathematics or prior programming experience. The content is supported by PixelMath, a freely available software program that helps the reader understand images as both visual and mathematical objects. The first part of the book covers such topics as digital image representation, sampling, brightness and contrast, color models, geometric transformations, synthesizing images, stereograms, photomosaics, and fractals. The second part of the book introduces computer programming using an open-source version of the easy-to-learn Python language. It covers the basics of image analysis and pattern recognition, including edge detection, convolution, thresholding, contour representation, and K-nearest-neighbor classification. A chapter on computational photography explores such subjects as high-dynamic-range imaging, autofocus, and methods for automatically inpainting to fill gaps or remove unwanted objects in a scene. Applications described include the design and implementation of an image-based game. The PixelMath software provides a transparent view of digital images by allowing the user to view the RGB values of pixels by zooming in on an image. PixelMath provides three interfaces: the pixel calculator; the formula page, an advanced extension of the calculator; and the Python window.

Basic principles of image processing and programming explained without college-level An Interdisciplinary Introduction to Image Processing: Pixels, Numbers, and Programs Date: 04/27/2012 Publisher: MIT Press Corporate Author: Books24x7, Inc. Format: Online Book. Language: English. Published: Cambridge, Mass. : MIT Press, c2012. Subjects: Image processing. An Interdisciplinary Introduction to Image Processing : Pixels, Numbers, and Programs. by Steven L. Tanimoto. No Customer Reviews An Interdisciplinary Introduction to Image Processing: Pixels, Numbers, and Programs This book explores image processing from several perspectives: the creative, the theoretical (mainly mathematical), mit press book. An Interdisciplinary Introduction to Image Processing: Pixels, Numbers, and Programs (MIT Press) eBook: Steven L. Tanimoto: : Kindle Store. AN INTERDISCIPLINARY INTRODUCTION TO IMAGE PROCESSING. Pixels, Numbers, and Programs. Steven L. Tanimoto. The MIT Press. Cambridge Get this from a library! An interdisciplinary introduction to image processing : pixels, numbers, and programs. [S Tanimoto] -- This book explores image 16. Tanimoto, S.L.: An Interdisciplinary Introduction to Image Processing: Pixels, Numbers, and Programs, p. 534. MIT Press, Cambridge, MA (2012) 17. Chityala An Interdisciplinary Introduction to Image Processing: Pixels, Numbers, and a freely available software program that helps the reader understand images as Tanimoto, S.L., An Interdisciplinary Introduction to Image Processing: Pixel, Numbers and Programs, Cambridge, MA, MIT Press, 2012. Tehrani Niknejad, H. An interdisciplinary introduction to image processing : pixels, numbers, and programs. Tanimoto S., The MIT Press, Cambridge, MA, 2012. 534 pp. Type: Book An Interdisciplinary Introduction to Image Processing: Pixels, Numbers, and Programs MIT Press: : Steven L. Tanimoto: Books. Pixels, Numbers, and Programs Steven Tanimoto. AN INTERDISCIPLINARY INTRODUCTION TO IMAGE PROCESSING Pixels, Numbers, and Programs Steven L. Tanimoto The MIT Press Cambridge, Massachusetts London, England 2012 An Interdisciplinary Introduction to Image Processing. Pixels, Numbers, and Programs. Steven L. Tanimoto 2012. Hardcover \$57.00 Our textbook. An Interdisciplinary Introduction to Image Processing. Pixels, Numbers, and Programs. Steven L. Tanimoto. The MIT Press