Even If You Don't Use Java

This will be one of my continuing reference books for some time to come.

Steve Cunningham, PhD, Past President of SIGGRAPH

An excellent resource for the users of ImageJ.

Wayne Rasband, author of ImageJ

This modern, self-contained, textbook explains the fundamental algorithms of digital image processing through practical examples and complete Java implementations. Available for the first time in English, Digital Image Processing is the definitive textbook for students, researchers, and professionals in search of critical analysis and modern implementations of the most important algorithms in the field.

- Practical examples and carefully constructed chapter-ending exercises drawn from the authors years of experience teaching this material

- Real implementations, concise mathematical notation, and precise algorithmic descriptions designed for programmers and practitioners

- Easily adaptable Java code and completely worked out examples for easy inclusion in existing, and rapid prototyping of new, applications
- Self-contained chapters and additional online material suitable for a flexible one- or two- semester course

- Uses ImageJ, the image processing system developed, maintained, and freely distributed by the U.S. National Institutes of Health (NIH)

- A comprehensive Website (www.imagingbook.com) with complete Java source code, test images, and additional instructor materials

This comprehensive, reader-friendly introduction is ideal for foundation courses as well as eminently suitable for self-study.

Wilhelm Burger is the director of the Digital Media degree programs at the Upper Austria University of Applied Sciences at Hagenberg.

Mark J. Burge is a program director at the National Science Foundation (NSF) and a principal at Noblis (Mitretek) in Washington, D.C.

My Personal Review:
To appreciate this wonderful book, it isn't at all necessary that you intend to code in Java or use ImageJ as an image-processing tool. If you want to understand the machine vision algorithms that would be used in ANY language, this text is for you.

The concepts are well illustrated (important for this topic, of course), especially where it comes to how and why a certain image operation works.

I've read many other texts on this subject, and most were either too basic (without explaining why or how things are done), or far too deep in mathematical concepts. This was exactly right. If you understand at least the basics of matrices and calculus (1st year is plenty), you're fully equipped to understand 90% of this book. If you're like me, you may need to do a little side reading, but not much.

Like any text book, there are some errata, so be sure and download those from their web site, where they also supply all the sample code, and links to ImageJ if you want to use that too.

If you want one book on Image Processing, this is it.