

Android Application Programming with OpenCV

Joseph Howse

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Joseph Howse : Android Application Programming with OpenCV before purchasing it in order to gage whether or not it would be worth my time, and all praised Android Application Programming with OpenCV:

2 of 2 people found the following review helpful. decent material if only there was more of it. By Daniel Noonan This book is tiny. It's incredibly small. It's width is about half that of the diameter of a United States dime. So it's a little under a centimeter thick. That's the first thing I noticed when the book finally arrived. When I previewed the book here on I thought it clipped the chapter titles. There really are only five chapters. It's an incredibly short programming book compared to others at just 112 pages. The first 30 pages are setting up OpenCv to work with eclipse. So content wise it doesn't even get into programming anything until one is almost a third or a little over a fourth of the way through the book. I feel a little ripped off to be honest. I don't think the book is worth the cost. However it's the only book on the market which covers this topic. What little content there is I guess gets covered well enough. However there's not much. One might be better off doing the tutorials on the OpenCV website and then finding supplementary material online. I think the publishers rushed this one out to market figuring there was a market for it. I wish the author and the publishers would have done more than meet the bare minimum of expectations though. I was really excited to receive

this book. It's such an interesting topic. Perhaps I'm a little biased as I did have such high expectations. It's worth reading through to learn some of the material I just don't think it's worth the full price of the book because it's rather skimpy on material. What material there is however is covered well enough as I mentioned. 2 of 2 people found the following review helpful. Good but too short By Darrel Riekhof I was very interested in learning about object recognition using opencv/android/java. There was a good example of using one of the feature detection types, but I was a little disappointed that it didn't go into more depth on the topic, or cover other techniques OpenCV supports like haar cascades, template matching, color thresholds(BGR vs HSV), contours with polygons, etc., and the different feature detecting methods(surf, sift, etc). Maybe the author is setting up a sequel. There is lots of OpenCV example code available in C++ that you can find google, but good Java/Android examples are hard to come by. This book provides a few good examples of working with the camera and doing some OpenCV stuff. Too short but what is there is good stuff. It leaves the audience wanting more. 0 of 0 people found the following review helpful. Greatly enjoyed it! By Nathan Waters Short and sweet! Great way to get your feet wet in Computer Vision and Graphics on Android.

In Detail Take a smartphone from your pocket, and within a few seconds, you can snap a photo, manipulate it, and share it with the world. You have just achieved mass production of image data. With a computer vision library such as OpenCV, you can analyze and transform copious amounts of image data in real time on a mobile device. The upshot to this is that you, as developers, can provide mobile users with many new kinds of images, constantly highlighting certain visual features that are of artistic or practical interest. Android is a convenient platform for such experiments because it uses a high-level language (Java), it provides standardized interfaces for sharing image data between applications, and it is mostly open source, so everyone can study its implementation. Android Application Programming with OpenCV is a practical, hands-on guide that covers the fundamental tasks of computer vision—capturing, filtering, and analyzing images—with step-by-step instructions for writing both an application and reusable library classes. Android Application Programming with OpenCV looks at OpenCV's Java bindings for Android and dispels mysteries such as which version of these bindings to use, how to integrate with standard Android functionality for layout, event handling, and data sharing, and how to integrate with OpenGL for rendering. By following the clear, concise, and modular examples provided in this book, you will develop an application that previews, captures, and shares photos with special effects based on color manipulation, edge detection, image tracking, and 3D rendering. Beneath the application layer, you will develop a small but extensible library that you can reuse in your future projects. This library will include filters for selectively modifying an image based on edge detection, 2D and 3D image trackers, and adapters to convert the Android system's camera specifications into OpenCV and OpenGL projection matrices. If you want a quick start in computer vision for Android, then this is the book for you. By the end of Android Application Programming with OpenCV, you will have developed a computer vision application that integrates OpenCV, Android SDK, and OpenGL. Approach A step-by-step tutorial to help you master computer vision and mobile app development. Who this book is for This book is for Java developers who are new to computer vision and who would like to learn about how it is used in relation to application development. It is assumed that you have previous experience in Java, but not necessarily Android. A basic understanding of image data (for example pixels and color channels) would be helpful too. You are expected to have a mobile device running Android 2.2 (Froyo) or greater and it must have a camera.

About the Author Joseph Howse Joseph (Joe) Howse might be at home right now, sitting on a sofa and writing a book, or he might have dashed away with a suitcase full of books, cameras, and computers. He is equipped to “see the world”; or at least to do his work in computer vision. He is currently a Software Developer at Ad-Dispatch (Canada), where he makes augmented reality games for iOS and Android. Thanks to computer vision, the games can make use of real-world props such as a child's drawings and toys. Joe also provides training and consulting services. He is currently consulting at Market Beat (El Salvador) on an embedded systems project that uses OpenCV for face recognition. He holds three Master's degrees in Computer Science, International Development Studies, and Business Administration (Dalhousie University, Canada). His research has been published by ISMAR (the International Symposium on Mixed and Augmented Realities), and he would love to meet you there if you go. Android Application Programming with OpenCV is Joe's second book with Packt. His first book, OpenCV: Computer Vision with Python, includes an introduction to face tracking and depth cameras (for example Kinect) on Windows, Mac, and Linux. Joe likes cats, kittens, and oceans. Felines and saline water sustain him. He lives with his multi-species family in Halifax, on Canada's Atlantic coast.