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OpenCV for iOS

Learn how to build real-time computer vision applications
for the iOS platform using the OpenCV library

Kirill Korniyakov

Alexander Shishkov

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To Nina and Brusnichka, whose warmth gives me strength.

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I want to thank my family who supported and encouraged me in spite of all the time I was away from them.

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You can check out Jean-David's blog at www.noxeos.com, or follow him on Twitter (@macmade).

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Preface

Instant OpenCV for iOS is a practical guide, showing every important step for building a computer vision application for the iOS platform. It will help you to port your OpenCV code, profile and optimize it, and then wrap into a GUI application. This book helps you to learn how to build a simple, but powerful computer vision application for the iOS devices from scratch. Throughout the book, you'll learn details that will help you to become a professional at iOS development using OpenCV. As usual, you begin with the simple "Hello World" application, but finally you will be able to create complex image processing applications with supreme efficiency.

Each recipe is accompanied with a sample project, helping you to focus on a particular aspect of the technology.

What this book covers

- ▶ *Getting started with iOS (Simple)*, helps you to set up your development environment and run your first "Hello World" iOS application.
- ▶ *Displaying an image from resources (Simple)*, introduces you to basic GUI concepts on iOS, and covers loading of an image from resources and displaying it on the screen.
- ▶ *Linking OpenCV to an iOS project (Simple)*, explains how to link OpenCV library and call any function from it.
- ▶ *Detecting faces with Cascade Classifier (Intermediate)*, shows how to detect faces using OpenCV.
- ▶ *Printing a postcard (Intermediate)*, demonstrates how a simple photo effect can be implemented.
- ▶ *Working with images in Gallery (Intermediate)*, explains how to load and save images from/to Gallery.
- ▶ *Applying a retro effect (Intermediate)*, demonstrates another interesting photo effect that makes photos look old.
- ▶ *Taking photos from camera (Intermediate)*, shows how to capture static images with camera.