OpenCV: Computer Vision Projects with Python

Joseph Howse, Prateek Joshi, Michael Beyeler

OpenCV: Computer Vision Projects with Python

Joseph Howse, Prateek Joshi, Michael Beyeler

OpenCV: Computer Vision Projects with Python Joseph Howse, Prateek Joshi, Michael Beyeler

Get savvy with OpenCV and actualize cool computer vision applications

About This Book

- Use OpenCV's Python bindings to capture video, manipulate images, and track objects
- Learn about the different functions of OpenCV and their actual implementations.
- Develop a series of intermediate to advanced projects using OpenCV and Python

Who This Book Is For

This learning path is for someone who has a working knowledge of Python and wants to try out OpenCV. This Learning Path will take you from a beginner to an expert in computer vision applications using OpenCV. OpenCV's application are humongous and this Learning Path is the best resource to get yourself acquainted thoroughly with OpenCV.

What You Will Learn

- Install OpenCV and related software such as Python, NumPy, SciPy, OpenNI, and SensorKinect - all on Windows, Mac or Ubuntu
- Apply "curves" and other color transformations to simulate the look of old photos, movies, or video games
- Apply geometric transformations to images, perform image filtering, and convert an image into a cartoon-like image
- Recognize hand gestures in real time and perform hand-shape analysis based on the output of a Microsoft Kinect sensor
- Reconstruct a 3D real-world scene from 2D camera motion and common camera reprojection techniques
- Detect and recognize street signs using a cascade classifier and support vector machines (SVMs)
- Identify emotional expressions in human faces using convolutional neural networks (CNNs) and SVMs
- Strengthen your OpenCV2 skills and learn how to use new OpenCV3 features

In Detail

OpenCV is a state-of-art computer vision library that allows a great variety of image and video processing operations. OpenCV for Python enables us to run computer vision algorithms in real time. This learning path proposes to teach the following topics. First, we will learn how to get started with OpenCV and OpenCV3's Python API, and develop a computer vision application that tracks body parts. Then, we will build amazing intermediate-level computer vision applications such as making an object disappear from an image, identifying different shapes, reconstructing a 3D map from images , and building an augmented reality application, Finally, we'll move to more advanced projects such as hand gesture recognition, tracking visually salient objects, as well as recognizing traffic signs and emotions on faces using support vector machines and multi-layer perceptrons respectively.

This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products:

- OpenCV Computer Vision with Python by Joseph Howse
- OpenCV with Python By Example by Prateek Joshi
- OpenCV with Python Blueprints by Michael Beyeler

Style and approach

This course aims to create a smooth learning path that will teach you how to get started with will learn how to get started with OpenCV and OpenCV 3's Python API, and develop superb computer vision applications. Through this comprehensive course, you'll learn to create computer vision applications from scratch to finish and more!.

⬇ Download OpenCV: Computer Vision Projects with Python ...pdf

🖹 Read Online OpenCV: Computer Vision Projects with Python ...pdf

Download and Read Free Online OpenCV: Computer Vision Projects with Python Joseph Howse, Prateek Joshi, Michael Beyeler

From reader reviews:

Joyce Morton:

Spent a free the perfect time to be fun activity to try and do! A lot of people spent their spare time with their family, or their own friends. Usually they carrying out activity like watching television, gonna beach, or picnic within the park. They actually doing same thing every week. Do you feel it? Do you wish to something different to fill your personal free time/ holiday? Could be reading a book could be option to fill your free time/ holiday. The first thing that you ask may be what kinds of publication that you should read. If you want to test look for book, may be the guide untitled OpenCV: Computer Vision Projects with Python can be great book to read. May be it could be best activity to you.

Gregory Mendoza:

Beside that OpenCV: Computer Vision Projects with Python in your phone, it could give you a way to get more close to the new knowledge or information. The information and the knowledge you can got here is fresh from the oven so don't always be worry if you feel like an aged people live in narrow commune. It is good thing to have OpenCV: Computer Vision Projects with Python because this book offers for you readable information. Do you at times have book but you don't get what it's facts concerning. Oh come on, that wil happen if you have this in your hand. The Enjoyable option here cannot be questionable, similar to treasuring beautiful island. Use you still want to miss the idea? Find this book along with read it from now!

Jennifer Trojanowski:

Is it an individual who having spare time then spend it whole day by means of watching television programs or just telling lies on the bed? Do you need something totally new? This OpenCV: Computer Vision Projects with Python can be the respond to, oh how comes? It's a book you know. You are consequently out of date, spending your spare time by reading in this brand-new era is common not a geek activity. So what these publications have than the others?

Lucia Stevenson:

What is your hobby? Have you heard that question when you got scholars? We believe that that problem was given by teacher to the students. Many kinds of hobby, Every individual has different hobby. And also you know that little person like reading or as reading become their hobby. You need to know that reading is very important as well as book as to be the factor. Book is important thing to include you knowledge, except your own personal teacher or lecturer. You see good news or update in relation to something by book. Numerous books that can you go onto be your object. One of them is actually OpenCV: Computer Vision Projects with Python.

Download and Read Online OpenCV: Computer Vision Projects with Python Joseph Howse, Prateek Joshi, Michael Beyeler #BA1GV5ER3KU

Read OpenCV: Computer Vision Projects with Python by Joseph Howse, Prateek Joshi, Michael Beyeler for online ebook

OpenCV: Computer Vision Projects with Python by Joseph Howse, Prateek Joshi, Michael Beyeler Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read OpenCV: Computer Vision Projects with Python by Joseph Howse, Prateek Joshi, Michael Beyeler books to read online.

Online OpenCV: Computer Vision Projects with Python by Joseph Howse, Prateek Joshi, Michael Beyeler ebook PDF download

OpenCV: Computer Vision Projects with Python by Joseph Howse, Prateek Joshi, Michael Beyeler Doc

OpenCV: Computer Vision Projects with Python by Joseph Howse, Prateek Joshi, Michael Beyeler Mobipocket

OpenCV: Computer Vision Projects with Python by Joseph Howse, Prateek Joshi, Michael Beyeler EPub