OpenCV 3 Tutorials, Resources, and Guides

Are you feeling a bit overwhelmed trying to learn OpenCV?

If so, don't worry! You don't need to read *everything* about computer vision and OpenCV. Instead, *what you really need is an expertly curated list* of **OpenCV 3 tutorials, guides, and resources.**

And that's exactly why I have started to collect the **best Python and OpenCV 3** articles and tutorials on PyImageSearch into a single, easy to digest page.

Want to learn how to **install OpenCV 3 and Python** on your system? No problem, I cover how to install OpenCV 3 on most major operating systems including Mac OSX, Ubuntu, and the Raspberry Pi.

What about learning the difference between functions in OpenCV 2.4 and OpenCV 3? Not an issue, let me help.

Or what about general tips and tricks using Python and OpenCV 3? I've got those too.

As new computer vision tutorials and articles are released on the PyImageSearch blog that cover OpenCV 3, I'll updating this page. In the meantime, **be sure to scroll through this page**, **open up any OpenCV 3 links that interest you**, and **start learning!**

Install OpenCV 3 and Python

The first step in learning computer vision using the OpenCV library is to get OpenCV and Python installed and configured on your system. I have created many OpenCV 3 and Python 2.7 + Python 3 installation tutorials, including OSX, Ubuntu, and the Raspberry Pi. Please use the links and resources below to install OpenCV 3 and Python on your system.

Install OpenCV 3 and Python on OSX and macOS

- Install OpenCV 3 on macOS with Homebrew (the easy way)
- macOS Sierra: Install OpenCV 3 and Python 3.5
- macOS Sierra: Install OpenCV 3 and Python 2.7
- Install OpenCV 3.0 and Python 2.7+ on OSX
- Install OpenCV 3.0 and Python 3.4+ on OSX

Install OpenCV 3 and Python on Ubuntu

- Ubuntu 16.04: How to install OpenCV with Python 2.7 and Python 3.5+
- Install OpenCV 3.0 and Python 2.7+ on Ubuntu
- Install OpenCV 3.0 and Python 3.4+ on Ubuntu

Install OpenCV 3 and Python on your Raspberry Pi

- Optimizing OpenCV on the Raspberry Pi
- **Raspbian Stretch:** Install OpenCV 3 + Python on your Raspberry Pi
- Install guide: Raspberry Pi 3 + **Raspbian Jessie** + OpenCV 3.
- How to install OpenCV 3.0 on **Raspbian Jessie**.
- Installing OpenCV on your Raspberry Pi Zero running **Rasbian Jessie**.
- Install OpenCV 3.0 for both Python 2.7 and Python 3+ on **Raspbian Wheezy**.
- Install OpenCV 2.4 for Python 2.7 on **Raspbian Wheezy**.

OpenCV 3 Tips and Tricks

- Checking your OpenCV version using Python
- Answering the question: *"Where did function 'X' go in OpenCV 3?"*
- OpenCV 3 adoption rate

Differences between OpenCV 2.4 and OpenCV 3

- Where did SIFT and SURF go in OpenCV 3?