Cat or No Cat

Classifying Imagr Images

Can we build logic into Imagr to automatically tag images?

How to start?

://www.google.com/?gws_rd=ssl

+Dan Gmail Images

Google Search I'm Feeling Lucky

ness About Privacy &

Hours Later…

How to classify images using Apache Mahout?

5

How to perform image classification from mahout? How to convert the image to a form which is accepted by mahout classification algorithms? Is the any starter code to start with? Please share me some starter tutorials. Is mahout good library for image classification?

image-processing | machine-learning | classification | mahout

share | edit | flag

asked Oct 15 '13 at 18:31

suren

1,039 ●5 ●20

add a comment

start a bounty

1 Answer

active | oldest | votes

1

There are two answers to your question:

The simple answer is that from a Mahout point of view classifying images is no different than classifying any other type of data. You find a suitable set of features to describe your data, and then: train, validate, test, and deploy.

The second answer is a bit more involved, and I'm going to summarize. In the case of images the step in which you compute a suitable set of features spans a whole research area (called computer vision). There are many methods: DHOG, direction of gradient, SURF, SIFT, etc. Depending on the images and what your expectations are, you may obtain reasonable results just using an existing method, or maybe not. It would be impossible to say without looking at your images and you telling us your objectives.

share | edit | flag

answered Oct 16 '13 at 5:55

I Have Two Problems

- Problem 1 - How to make the machine learn from prior data
- Problem 2 - How to represent an image as data that can be learned

Solution 1 - scikit-learn

- Python machine learning library
- Handles classification problems
- http://scikit-learn.org/stable/tutorial/basic/tutorial.html

Solution 2 - Computer Vision

- Entire field of active CS research
- I have 3 hours to present, 3 days to learn
- Inspiration found @ http://programmingcomputervision.com/

Vision Approach

- Convert to greyscale
- Reduce color pallet in uniform way
- Feed resulting array to scikit-learn

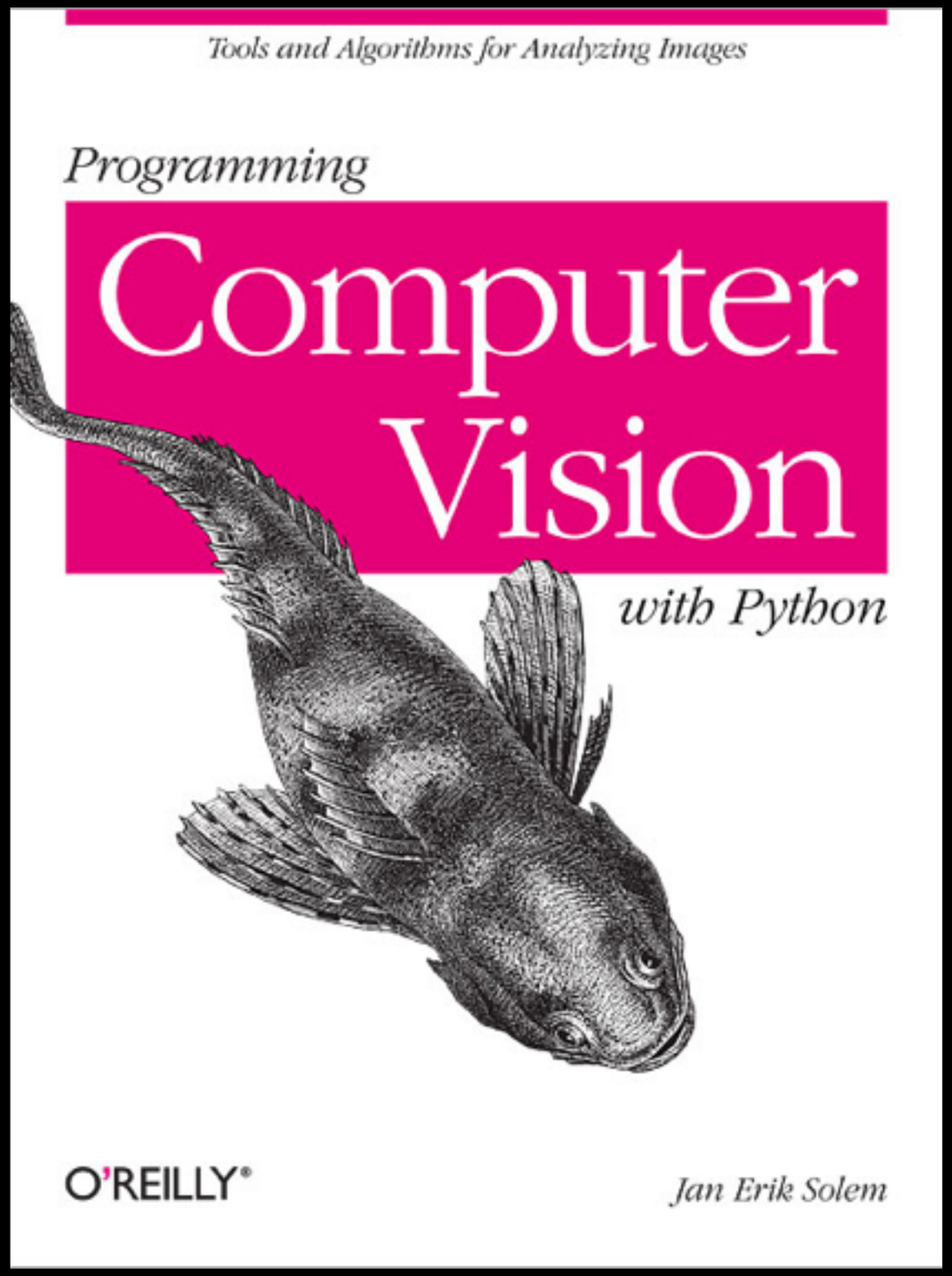
NOT SURE IF EASY AS PIE

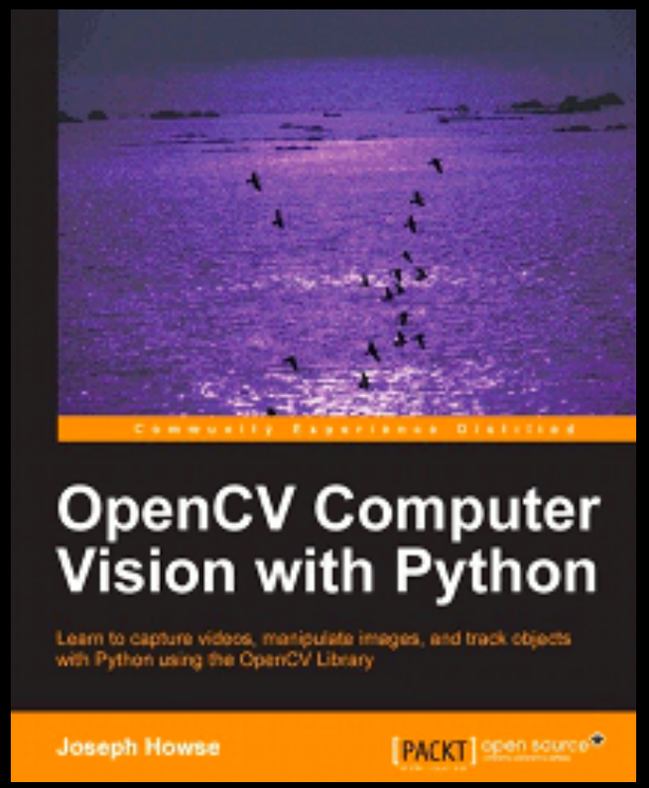
OR PIECE OF CAKE

Code Intermission

Retrospective

- Having two problems is way more complex than having one problem.
- The simple image resizing approach would have quickly failed to tag images.
- OpenCV is more than a few minutes of setup and learning.


Tools and Algorithms for Analyzing Images
Programming
Computer Vision
with Python
O'REILLY®
Jan Erik Solem


OpenCV Computer Vision with Python
Learn to capture videos, manipulate images, and track objects with Python using the OpenCV Library
Joseph Howse
PACKT open source