License

BSD : It is free for academic and commercial use.

MATLAB CV Toolbox (http://www.mathworks.com/products/computer-vision/)

Summary

A computer vision toolbox for MATLAB.

Languages

MATLAB

Platforms

Windows, Mac OS X and Linux.

License

MATLAB's license. Requires Image Processing Toolbox. The total cost of installing MATLAB ($2,150) + Image Processing Toolbox ($1, 000) + Computer Vision Toolbox ($1,350) = $4500. Student licenses are much cheaper though (few hundred dollars).

Python Libraries

One of the main advantages of using OpenCV with Python is the vast number of scientific libraries available for Python. Here are a few libraries you will find useful. The first three libraries — NumPy, SciPy and Matplotlib — are part of the SciPy stack. When used together, they pretty much replace MATLAB.

1. **NumPy (http://www.numpy.org) :** NumPy adds support for large, multi-dimensional arrays and matrices to Python. It also consists of a large library of high-level mathematical functions to operate on these arrays. OpenCV images are read in as NumPy arrays. Several other math, image processing, and machine learning libraries are built on top of NumPy.
2. **SciPy** (**http://scipy.org/scipylib/index.html**) : SciPy is a powerful scientific library built on top of NumPy. It's sub packages include linalg (linear algebra), optimize (optimization and root-finding routines), stats (statistical distributions and functions), ndimage (N-dimensional image processing), interpolate (interpolation and smoothing splines) , fftpack (Fast Fourier Transform routines), cluster (Clustering algorithms) and many more.
3. **matplotlib** (**http://matplotlib.org/**) : An excellent 2D plotting library for Python that is every bit as powerful as MATLAB. You can generate plots, histograms, power spectra, bar charts, scatterplots, etc, with just a few lines of code.

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