Opencv笔记2-人脸识别代码

1. JAVA版本

要求：识别图片中人脸特征照，并且输出相应的图片信息（程序可以识别一张照片中的多个人物特征照）

**import** org.opencv.core.Core;

**import** org.opencv.core.Mat;

**import** org.opencv.core.MatOfRect;

**import** org.opencv.core.Point;

**import** org.opencv.core.Rect;

**import** org.opencv.core.Scalar;

**import** org.opencv.highgui.Highgui;

**import** org.opencv.objdetect.CascadeClassifier;

**class** DetectFaceDemo{

**public** **void** run(){

System.***out***.println("Running DetectDemo");

CascadeClassifier faceDetector = **new** CascadeClassifier("lbpcascade\_frontalface.xml");//该文件位于opencv安装目录中的data中，是人脸识别的训练集

Mat image = Highgui.*imread*("lena.png");//根据需要自己修改照片的名字

**if**(**true**==image.empty()){

System.***out***.println("can not read picture");

**return** ;

}

MatOfRect faceDetections = **new** MatOfRect();

faceDetector.detectMultiScale(image, faceDetections);

System.***out***.println(String.*format*("Detected %s faces", faceDetections.toArray().length));

**int** i =0;

**for**(Rect rect : faceDetections.toArray()){

Core.*rectangle*(image, **new** Point(rect.x,rect.y),

**new** Point(rect.x+rect.width, rect.y+ rect.height), **new** Scalar(255));

Highgui.*imwrite*((i++)+".jpg",**new** Mat(image,rect));

}

String filename = "faceDetection.png";

System.***out***.println(String.*format*("writing %s", filename));

Highgui.*imwrite*(filename, image);

}

}

**public** **class** TestMain {

**static** {

System.*loadLibrary*(Core.***NATIVE\_LIBRARY\_NAME***);

}

**public** **static** **void** main(String[] args) {

System.***out***.println("welcome to opencv " + Core.***VERSION***);

**new** DetectFaceDemo().run();

}

}

1. C++版本代码

注意事项：

1. C++中的数字转换成为字符串
2. 关于使用函数的API

Source code:

#include <opencv2\opencv.hpp>

#include <stdio.h>

#include <iostream>

#include <string>

#include <vector>

#include <iterator>

#include <sstream>

using namespace std;

using namespace cv;

//number to string

template <typename T>

string NumberToString(T number){

ostringstream oss;

oss << number;

return oss.str();

}

int main(){

const char\* image\_name = "yang.jpg";

const char\* cascade\_name = "haarcascade\_frontalface\_alt.xml";

Mat image = imread(image\_name, 1);

if (image.empty() == true){

cout << "can not read image file:" << image\_name << endl;

return (1);

}

CascadeClassifier faceDetector;

faceDetector.load(cascade\_name);

vector<Rect> faces;

faceDetector.detectMultiScale(image, faces);

cout << "Detected " << faces.size() << " faces" << endl;

Scalar scalar(1.0);

int i = 1;

string filename;

for (vector<Rect>::iterator iter = faces.begin(); iter != faces.end(); iter++){

rectangle(image, \*iter, scalar);

filename.clear();

filename.append(NumberToString(i++)).append(".jpg");

imwrite(filename, image(\*iter ));

cout << "write file :" << filename << endl;

}

//imshow("yang", image);

waitKey(0);

return 0;

}

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