

User Guidance of Computer Graphic – Saliency Prediction

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USER GUIDANCE

1. FILE SPECIFICATION

As you can see there are some files in our handout file. And here we explain the content of each file.

A. Bonus Documents

This file includes our bonus document.

B. Experiment Data

i. CNN_model file*:

This file includes the final CNN model of our project. The ourmodel.caffemodel is our final training weight, while the mydeploy.prototxt tells caffe how to use this weight document.

ii. Dataset file:

This file includes the all datasets of our saliency benchmark, but as they are too large(>2G), we just offer address for download, which is also mentioned in README.md.

iii. Weight file:

The weight file includes our training weight snapshot. And this file is not so important, and you can just use the weight in CNN model file.

iv. Some picture examples:

This file includes some of our experiment data, and there are two python code in it, you can read the README.md to know what are these codes' function.

v. Visualization examples:

This file includes our visualization examples of each layers of CNN model from 2 images.

C. Final Presentation ppt

This file includes our final presentation ppt, which might help you to remember details of our presentation.

D. Report

This file includes our final report.

E. Student Contribution

This file includes the contribution of each student.

F. Source Code

i. **deploy:**

Includes code of how to train our CNN model.

This code should be run under the Ubuntu14.04 + python2.7 + anaconda2.7 + matlab + caffe + openCV3.

ii. **Saliency_UI_2_0*:**

This file is about our final GUI.

Why we call it _2_0 is because we develop several versions of our GUI and final code. And this is the newest version.

This code is written by Lingkun Kong, under Ubuntu14.04 + python3.5 + anaconda3.5.

The detailed usage manual is in **the README.md document***.

But in short:

Cd into the saliency_UI_2_0;

Python main.py;

iii. **Ipython notebook*:**

It includes specific details of how our CNN network works based on our final weights and deploy prototxt.

The detailed usage manual is in **the README.md document*** in it.

iv. **Caffe config:**

This file includes the configuration details of caffe.

2. SOME IMPORTANT THINGS

If you want to just know how our project works, just open the source code file and then open the saliency_UI_2_0 file, read the README.md carefully, then you will learn anything.

Warning: you must use python3.5, and we strongly recommend you to install anaconda3.5.

But if you want learn more about our CNN model, you should do follow things:

1. *Install caffe and configure the environment carefully.*
Ubuntu14.04 + python2.7 + anaconda2.7 + matlab + caffe + openCV3
2. *Open the saliency.ipynb document under sourcecode/ipython notebook by python notebook, and you can get graphic ideas by the instruction on saliency.ipynb.*
3. *Run the fuse.ipynb in same way, and you can get insight of our project.*

Warning: caffe configuration is really annoying. If you meet any trouble, contact me at kenny_kong@foxmail.com