

# Experiment of Tattoo Detection Based on CNN and Remarks on the NIST Database

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## 1 Introduction

This document introduces the experiment.

- Fold code: this is the experiment code. You can refer to document./code/cuda-convnet2/README.txt if you want to use it.
- Fold Data: this is all data of experiment. It includes Flickr data-set.

## 2 Data-set

Flickr dataset is downloaded from [www.flickr.com](http://www.flickr.com). This includes Flickr2349 with 2349 images, Flickr3500 with 3500 images, Flickr5000 with 5000 images and Flickr10000 with 10000 images.

Every data-set includes five groups and the ratio between tattoo and non-tattoo is same with NIST.

## 3 CODE

- 1, Install cuda-convnet.  
The version is cuda-convnet2. The detail installed command is showed in the web:  
<https://code.google.com/archive/p/cuda-convnet2/>.
- 2, convert the jpg data-set to the format of cuda-convnet.  
The code is showed in ./make-data/ICB\_makedata.py and the code to generate the meta file is showed with code ./ICB\_makemeta.py
- 3. Net define.  
The net file is located ./layers/
- 4. Train.  
The train command is showed in the fold ./xyongle.sh

## References