Xiaoxiao Sun

College of Computer and Control Engineering
Nankai University, Tianjin, 300071, P. R. China

Tel: 86+15522031679
Email: xxsun9209@gmail.com

I'm a master student now at the Institute of Machine Intelligence (IMI), Nankai University (NKU) for a master degree under the supervision of Associate Professor Jufeng Yang.

BASIC INFORMATION

M.S., Computer Science and Technology, in College of Computer and Control Engineering, Nankai University (NKU) (09/2015-present)

- **GPA**: 3.44/4

B.S., Information and Computing Science, in School of Mathematics Sciences, Hebei University of Technology (HBUT) (09/2011-07/2015)

- **GPA**: 3.34/4
- **Rank**：2/40

ACADEMIC EXPERIENCE

- Member of Computer Vision Group, Institute of Machine Intelligence (IMI), NKU (09/2015-present)
- Member of Learning Group, CV lab, NKU (09/2015-present)

PUBLICATIONS

- **Xiaoxiao Sun**, Jufeng Yang, Ming Sun, Kai Wang, "A Benchmark for Automatic Visual Classification of Clinical Skin Disease Images", ECCV 2016 (pdf)
- Jufeng Yang, Ming Sun, **Xiaoxiao Sun**, "Learning Visual Sentiment Distributions via Augmented Conditional Probability Neural Network", AAAI 2017 (pdf)

SKILLS

- Skilled in Matlab in machine learning and optimization algorithms
- Skilled in deep learning and Caffe framework
- Skilled in C/C++ with OpenCV in computer vision

RESEARCH PROJECTS

- Automatic Visual Classification of Clinical Skin Disease Images (09/2015 – now)
  Supervisor: Professor Jufeng Yang and Paul Rosin (Cardiff University)
  - Collect a clinical skin disease images dataset SD-198 and evaluate different kinds of visual features to discuss the representation for clinical skin diseases
  - Design medical representation for skin lesion recognition based on the dermatologist criteria to make the representation consistent with the observation of doctor and to improve the recognition results
  - Utilize easily labeled attributes of skin disease such as asymmetry, regularity of border and color to learn an attribution model for recognizing skin diseases
- Learning Visual Sentiment Distributions via Augmented Conditional Probability Neural Network (03/2016 – 09/2016)
  Supervisor: Professor Jufeng Yang

- Address the sentiment ambiguity by label distribution learning (LDL) based on that one image usually evokes multiple emotions simultaneously
- Propose two new models BCPNN and ACPNN for label distribution learning, which take advantage of binary label representation and augment affective labels, respectively

- Learning from Web Data for Object Recognition (09/2016-now)
  Supervisor: Professor Jufeng Yang, Mingming Cheng, Yu-Kun Lai (Cardiff University) and Post Doctorate Liang Zheng (University of Technology Sydney)
  - Leveraging the abundant number of web data is a promising strategy in addressing the problem of data lacking when training the CNN. However, the web images usually contain incorrect tags that compromise the learned CNN model
  - Propose a progressive filtering approach and multi-label correction strategy to address above problem
  - Design a framework to undo the dataset bias between web and standard datasets based on domain adaption and object detection

RESEARCH INTERESTS

- Domain Adaptation: whether we could transfer knowledge from the model trained on some available labeled data to the real world of natural images, or transfer the knowledge from the real world of natural images to a specific task with only a small amount of data without the influence of the different data distribution.
- Undoing Dataset bias: whether we could reduce the mismatch of the joint distribution of inputs between source and target domains to improve the performance of transfer learning.

HONORS AND AWARDS

- **Scholarships**
  - National Scholarship from 2016 to 2017
  - National Endeavor Scholarship from 2012 to 2013
  - Excellent Student Scholarships from 2011 to 2014 for HBUT undergraduate students
  - Excellent Student Leader Scholarships from 2014 to 2015 for HBUT undergraduate students
- **Honors**
  - Merit Student of NKU
  - Outstanding Graduate of Colleges and Universities in Hebei Province
  - Excellent Communist Youth League Member of HBUT
  - Excellent Student Leader of HBUT