

Xiaoxiao SUN

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I am a Ph.D. student at the Australian National University (ANU) under the supervision of Dr. Liang Zheng and Prof. Hongdong Li. I received my M.Sc from the College of Computer and Control Engineering, Nankai University (NKU) in 2018, supervised by Professor Jufeng Yang.

INTERESTS

Computer Vision, especially for Image Recognition, Medical Image Understanding, Transfer Learning

EXPERIENCE

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|-----------|---|
| 2019-now | Ph.D. , in College of Engineering and Computer Science, Australian National University |
| 2018-2019 | Visiting Student , in Information Systems Technology and Design, Singapore University of Technology and Design |
| 2015-2018 | M.Sc. , Computer Science and Technology, in College of Computer and Control Engineering, Nankai University |
| 2011-2015 | B.Sc. , Information and Computing Science, in School of Mathematics Sciences, Hebei University of Technology |

PUBLICATION

- Xiaoxiao Sun, Liang Zheng. "Dissecting Person Re-identification from the Viewpoint of Viewpoint", **CVPR** 2019
- Xiaoxiao Sun, Liyi Chen, Jufeng Yang. "Learning from Web Data using Adversarial Discriminative Neural Networks for Fine-Grained Classification", **AAAI** 2019
- Jufeng Yang, Xiaoping Wu, Jie Liang, Xiaoxiao Sun, Ming-Ming Cheng, Paul L. Rosin and Liang Wang. "Self-Paced Balance Learning for Clinical Skin Disease Recognition", **TNNLS** 2019
- Jufeng Yang, Xiaoxiao Sun, Yu-Kun Lai, Liang Zheng, Ming-Ming Cheng. "Recognition from Web Data : A Progressive Filtering Approach", **TIP** 2018
- Jufeng Yang, Xiaoxiao Sun, Jie Liang, Paul Rosin. "Clinical Skin Lesion Diagnosis using Representations Inspired by Dermatologist Criteria", **CVPR** 2018
- Jufeng Yang, Liyi Chen, Le Zhang, Xiaoxiao Sun, Dongyu She, Shao-Ping Lu, Ming-Ming Cheng. "Historical Context-based Style Classification of Painting Images via Label Distribution Learning", **ACM TMM** 2018
- Jufeng Yang, Ming Sun, Xiaoxiao Sun. "Learning Visual Sentiment Distributions via Augmented Conditional Probability Neural Network", **AAAI** 2017
- Xiaoxiao Sun, Jufeng Yang, Ming Sun, Kai Wang. "A Benchmark for Automatic Visual Classification of Clinical Skin Disease Images", **ECCV** 2016

RESEARCH PROJECTS

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| Now
July 2018 | Learning from Synthetic Data, , <ul style="list-style-type: none">➢ Building a 3D data synthesis system to create high-fidelity, realistic synthetic datasets➢ Evaluating the influence of visual factors on the performance of machine vision systems based on the controllable synthetic data➢ design real-world models of machine vision that effectively leverage the scientific discoveries and learn better from synthetic data <div>Supervisor : Dr. Liang Zheng (The Australian National University)</div> |
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Now September 2015	Automatic Visual Classification of Clinical Skin Disease Images, NKU, China <ul style="list-style-type: none"> > Collect a clinical skin disease images dataset SD-198 and evaluate the performance of different kinds of visual features on 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 <div>Supervisor : Professor Jufeng Yang (NKU) Professor Paul Rosin (Cardiff University)</div>
December 2018 September 2016	Learning from Web Data for Object Recognition, NKU, China <ul style="list-style-type: none"> > Leverage the abundant number of web data to address the problem of data lacking when training the CNN. Specifically, focus on minimizing the influence of the 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 (feature-level) and unsupervised object detection (image-level) <div>Supervisor : Professor Jufeng Yang (NKU) Mingming Cheng (NKU) Yu-Kun Lai (Cardiff University) Liang Zheng (The Australian National University)</div>
September 2016 March 2016	Learning Visual Sentiment Distributions via Augmented Conditional Probability Neural Network, NKU, China <ul style="list-style-type: none"> > 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 <div>Supervisor : Professor Jufeng Yang (NKU)</div>

HONORS AND AWARDS

2018	Excellent Master Graduate, Nankai University
2017	National Scholarship for Outstanding Postgraduate, the Ministry of Education, China
2017	Merit Student, Nankai University

LANGUAGES

Chinese ● ● ● ● ●
English ● ● ● ○ ○

SKILL

- > Python, Matlab, C++, Linux
- > Caffe, PyTorch
- > LaTeX, Photoshop, Unity