

# Chen-Lin Zhang

## Curriculum Vitae

LAMDA Group  
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Ph.D. candidate

### Research Interests

My research interests include: *Computer Vision and Deep Learning*. Currently, I am focusing on **video related tasks**:

- Resource constrained computer vision tasks;
- Video related vision tasks;

### Education

- **Ph.D.** in Computer Science and Technology 2016.09-2021.12 (expected)  
LAMDA Group, Department of Computer Science and Technology, Nanjing University  
**Supervisor:** Prof. Jianxin Wu
- **Visiting Scholar** in Computer Science 2019.12-2020.12  
Department of Computer Science, University of Wisconsin-Madison  
**Supervisor:** Prof. Yin Li
- **B.Sc.** in Computer Science and Technology 2012.09-2016.07  
Department of Computer Science and Technology, Nanjing University

### Publications

Google Scholar: <https://scholar.google.com/citations?user=e-RfnkMAAAAJ&hl=en>

‘\*’ represents that authors contribute equally to this work.

#### Journal Articles:

1. **Chen-Lin Zhang** and Jianxin Wu. Improving CNN Linear Layers with Power Mean Non-Linearity. *Pattern Recognition*, 2019, 89: 12-21.
2. \*Xiu-Shen Wei, **\*Chen-Lin Zhang**, Jianxin Wu, Chunhua Shen and Zhi-Hua Zhou. Unsupervised Object Discovery and Co-Localization by Deep Descriptor Transformation. *Pattern Recognition*, 2019, 88: 113-126.
3. \*Xiu-Shen Wei, **\*Chen-Lin Zhang**, Hao Zhang and Jianxin Wu. Deep Bimodal Regression of Personality Traits from Short Video Sequences. *IEEE Transactions on Affective Computing (TAC)*, 2018, 9(3): 303-315.

4. Guo-Bing Zhou, Jianxin Wu, **Chen-Lin Zhang** and Zhi-Hua Zhou. Minimal Gated Unit for Recurrent Neural Networks. *International Journal of Automation and Computing*, 2016, 13(3): 226-234.

### Conference Papers:

5. Ran Xu, **Chen-Lin Zhang**, Pengcheng Wang, Jayoung Lee, Subrata Mitra, Somali Chaterji, Yin Li, Saurabh Bagchi. ApproxDet: Content and Contention-Aware Approximate Object Detection for Mobiles. In *Proceedings of the 18th ACM Conference on Embedded Networked Sensor Systems (SenSys 2020)*.
6. **Chen-Lin Zhang**, Yun-Hao Cao and Jianxin Wu. Rethinking the Route Towards Weakly Supervised Object Localization. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2020)*, Seattle, WA (Virtual), USA. pp. 13460-13469.
7. \*Xiu-Shen Wei, **Chen-Lin Zhang**, Linqiao Liu, Jianxin Wu and Chunhua Shen. Coarse-to-fine: A RNN-based Hierarchical Attention Model for Vehicle Re-identification. In *Proceedings of the 14th Asian Conference on Computer Vision (ACCV 2018)*, Perth, Australia, 575-591.
8. **Chen-Lin Zhang**, Jian-Hao Luo, Xiu-Shen Wei and Jianxin Wu. In Defense of Fully Connected Layers in Visual Representation Transfer. In *Proceedings of the 18th Pacific-Rim Conference on Multimedia (PCM 2017)*, Harbin, China, 2017, LNCS 10736. pp. 807-817.
9. \*Xiu-Shen Wei, **Chen-Lin Zhang**, Yao Li, Chen-Wei Xie, Jianxin Wu, Chunhua Shen and Zhi-Hua Zhou. Deep Descriptor Transforming for Image Co-Localization. In *Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI 2017)*, Melbourne, Australia, pp. 3048-3054.
10. **Chen-Lin Zhang**, Hao Zhang, Xiu-Shen Wei and Jianxin Wu. Deep Bimodal Regression for Apparent Personality Analysis. In *Proceedings of the 14th European Conference on Computer Vision (ECCV16) Workshops*, Amsterdam, The Netherlands, 2016, LNCS 9913, pp. 311-324.

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## Research Projects (Except Publication)

- Weakly Supervised Object Localization and Detection 2018.09-present  
We develop a new paradigm shift for both WSOL and WSOD tasks  
A paper has been published in CVPR 2020, More works/submissions are in progress
- Long-Term Action Localization 2019.12-present

We first explore a new representation for actions, and develop a model which can handle the annotation ambiguity in action localization tasks

- Contention-Aware Video Object Detection Methods on Mobile Devices 2020.4-present  
We develop a model which can adaptively respond to contention and content changes  
A paper has been published in Sensys 2020, More works/submissions are in progress

## Professional Activities

### Journal Reviewer:

- IEEE Transactions on Dependable and Secure Computing (TDSC)
- IEEE Transactions on Affective Computing (TAC)
- IEEE Communication Letters
- Elsevier Journal of Pattern Recognition (PR)
- ACM Transactions on Knowledge Discovery from Data (TKDD)

### Conference Reviewer:

- ICCV 2021
- IJCAI 2021
- CVPR 2021
- ECCV 2020
- ICPR 2020
- AAAI 2019

## Awards & Honors

- A gold medal (the 6th place of all 2,293 teams) in the competition of Nature Conservancy Fisheries Monitoring (Kaggle) 2017.04
- Presidential Special Scholarship for first year Ph.D. Student in Nanjing University 2016.09
- Win the 1st place in Apparent Personality Analysis (in association with ECCV 2016) as Team Leader. 2016.08
- ACM-ICPC Asia Regional Contest Silver Prize 2014-2016

## Teaching Assistants

- **Programming Basics.** (for undergraduate students. Autumn, 2018)
- **Pattern Recognition.** (for undergraduate and graduated students. Spring, 2018)
- **Assistant Coach of Nanjing University ACM-ICPC Team.** 2016-2019