

# Yawei Li

## Curriculum Vitae

Computer Vision Lab  
ETH Zürich  
☎ (+41) 779174917  
✉ yawei.li@vision.ee.ethz.ch  
🌐 My Webpage  
🐙 Github   in LinkedIn



## Education

2017–present **ETH Zürich** **Zürich, Switzerland.**  
Ph.D in Computer Science  
Supervisor: Luc Van Gool  
Co-supervisor: Radu Timofte

## Publications

### Peer-Reviewed Conference Publications

- 2020 Kai Zhang, Martin Danelljan, **Yawei Li**, and Radu Timofte. AIM 2020 challenge on efficient super-resolution: Methods and results. In *Proceedings of the European Conference on Computer Vision Workshops*, 2020.
- 2020 **Yawei Li**, Shuhang Gu, Kai Zhang, Luc Van Gool, and Radu Timofte. DHP: Differentiable meta pruning via hypernetworks. In *Proceedings of the European Conference on Computer Vision*, 2020.
- 2020 **Yawei Li**, Shuhang Gu, Christoph Mayer, Luc Van Gool, and Radu Timofte. Group sparsity: The hinge between filter pruning and decomposition for network compression. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2020.
- 2019 **Yawei Li**, Vagia Tsiminaki, Radu Timofte, Marc Pollefeys, and Luc Van Gool. 3D appearance super-resolution with deep learning. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, pages 9671–9680, 2019.
- 2019 **Yawei Li**, Shuhang Gu, Luc Van Gool, and Radu Timofte. Learning filter basis for convolutional neural network compression. In *Proceedings of the IEEE International Conference on Computer Vision*, 2019.
- 2019 Shuhang Gu, **Yawei Li**, Luc Van Gool, and Radu Timofte. Self-guided network for fast image denoising. In *Proceedings of the IEEE International Conference on Computer Vision*, 2019.
- 2018 **Yawei Li**, Eirikur Agustsson, Shuhang Gu, Radu Timofte, and Luc Van Gool. CARN: convolutional anchored regression network for fast and accurate single image super-resolution. In *Proceedings of the European Conference on Computer Vision Workshops*, pages 166–181. Springer, 2018.
- 2016 **Yawei Li**, Xiaofeng Li, Zhizhong Fu, and Wenli Zhong. Multiview video super-resolution via information extraction and merging. In *Proceedings of the ACM International Conference on Multimedia*, pages 446–450. ACM, 2016.
- 2016 **Yawei Li**, Xiaofeng Li, Zhizhong Fu, Xiuxia Yin, and Yufei Zhao. Bilateral video super-resolution using non-local means with adaptive parameters. In *Proceedings of the IEEE International Conference on Image Processing*, pages 1155–1159. IEEE, 2016.
- 2016 **Yawei Li**, Xiaofeng Li, Zhizhong Fu, Tingting Niu, and Keyu Long. Spatiotemporal super-resolution for multiview video in transform domain. In *Proceedings of Visual Communications and Image Processing*, pages 1–4. IEEE, 2016.

- 2016 Gang Chen, **Yawei Li**, and Sargur N Srihari. Joint visual denoising and classification using deep learning. In *Proceedings of the IEEE International Conference on Image Processing*, pages 3673–3677. IEEE, 2016.

#### Peer-Reviewed Journal Publications

- 2018 **Yawei Li**, Xiaofeng Li, and Zhizhong Fu. Modified non-local means for super-resolution of hybrid videos. *Computer Vision and Image Understanding*, volume 168, pages 64–78. Elsevier, 2018.
- 2016 **Yawei Li**, Xiaofeng Li, Norman C Beaulieu, and Zhizhong Fu. Envelope and phase statistics of cauchy quadratures. *Electronics Letters*, volume 52, pages 1132–1134. IET, 2016.
- 2016 Zhizhong Fu, **Yawei Li**, Yuan Li, Lan Ding, and Keyu Long. Frequency domain based super-resolution method for mixed-resolution multi-view images. *Journal of Systems Engineering and Electronics*, volume 27, pages 1303–1314. BIAI, 2016.

#### Preprints

- 2020 Kai Zhang, **Yawei Li**, Wangmeng Zuo, Lei Zhang, Luc Van Gool, and Radu Timofte. Plug-and-play image restoration with deep denoiser prior. *arXiv preprint arXiv:2008.13751*, 2020.
- 2020 Yunxuan Wei, Shuhang Gu, **Yawei Li**, and Longcun Jin. Unsupervised real-world image super resolution via domain-distance aware training. *arXiv preprint arXiv:2004.01178*, 2020.
- 2020 **Yawei Li**, Wen Li, Martin Danelljan, Zhang Kai, Shuhang Gu, Luc Van Gool, and Radu Timofte. The heterogeneity hypothesis: Finding layer-wise dissimilated network architecture. *arXiv preprint arXiv:2006.16242*, 2020.

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### Selected Awards

- 07/2019 **Best Poster Presentation Award**, International Computer Vision Summer School, Sicily, Italy.
- 09/2018 **Runner-up in PIRM 2018 Challenge**, Workshop and Challenge on Perceptual Image Restoration and Manipulation, European Conference on Computer Vision, Munich, Germany.
- 12/2016 **National Scholarship**, Ministry of Education of China.
- 11/2016 **Tang Lixin Scholarship**, University of Electronic Science and Technology of China.
- 12/2015 **National Scholarship**, Ministry of Education of China.
- 12/2013 **National Scholarship**, Ministry of Education of China.
- 12/2012 **CASC First-Class Scholarship**, China Aerospace Science and Technology Corporation.

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### Academic Services

#### Master Student Supervision

- Huseyin Ziya Imamoglu, 11/2020-present
- Silvio Paganucci, 2019-2020

#### Outstanding Reviewer

- Asian Conference on Computer Vision (ACCV), 2020

#### Senior Program Committee (SPC) Member

- International Joint Conference on Artificial Intelligence (IJCAI), 2021

#### Conference Reviewer

- Computer Vision and Pattern Recognition (CVPR)
- Neural Information Processing Systems (NeurIPS)
- AAAI Conference on Artificial Intelligence (AAAI)
- International Joint Conference on Artificial Intelligence (IJCAI)
- Asian Conference on Computer Vision (ACCV)

- Winter Conference on Applications of Computer Vision (WACV)
- Pacific Graphics

#### Journal Reviewer

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- Knowledge-Based Systems
- International Journal of Intelligent Systems
- Neurocomputing
- Journal of Systems Architecture
- PLOS ONE

#### Teaching Assistantship

Fall, 2020 **227-0085-11L: Deep Learning for Image Manipulation**, *Lecturers: Luc Van Gool.*

Fall, 2019 **263-5902-00L: Computer Vision**, *Lecturers: Marc Pollefeys, Vittorio Ferrari Luc Van Gool.*

Fall, 2018 **263-5902-00L: Computer Vision**, *Lecturers: Marc Pollefeys, Vittorio Ferrari Luc Van Gool.*

Fall, 2017 **263-5902-00L: Computer Vision**, *Lecturers: Luc Van Gool, Vittorio Ferrari, Andreas Geiger.*

#### Languages

- Chinese: Native; English: Fluent

#### Computer Skills

- Programming: Python, PyTorch, Tensorflow, C++, Matlab
- Typesetting:  $\text{\LaTeX}$