Yapeng TIAN

Contact
Information

The Department of Electronic Engineering, Tsinghua University, Beijing, China, 100084. \$\pi\ +86-13128953345
\times \text{yapengtian@rochester.edu}
http://yapengtian.org/

Research Interests

- Machine Learning: Regression, Dictionary Learning, Deep Learning.
- Low-Level Vision: Single image super-resolution, Edge-preserving image smoothing, Guided depth map upscaling.

EDUCATION

Tsinghua University, Beijing, China

Sep. 2014 - July 2017

- M.E. in The Department of Electronic Engineering
- Advisor: Assoc. Prof. Wenming Yang
- GPA: 90.55/100 (Rank: 3/52)

Xidian University, Xi'an, China

Aug. 2009 – July 2013

• *B.E.* in Intelligence Science and Technology (School of Electronic Engineering)

RESEARCH EXPERIENCE

Department of Electronic Engineering, Tsinghua University

Mar. 2015 – Present

• Research Assistant with Assoc. Prof. Wenming Yang

Project 1: Single image super-resolution

Mar. 2015 – Present

• **Difficulty:** complicated nonlinear relationships between low-resolution and highresolution image patches **and** visually unpleasing artifacts in super-resolved images introducing by inaccurate representations of image patches

Project 2: Image-guided depth map upscaling

Oct. 2016 – Present

• **Difficulty:** low-resolution depth map with limited fine structures **and** inconsistent structures between depth maps and its corresponding guided images

SIAT, Chinese Academy of Sciences

Nov. 2016 – Present

• *Visiting Student* with *Prof.* Yu Qiao

Project: Deep learning for low-level vision

Journal Publications

(Dr. Wenming Yang and Dr. Fei Zhou are my master supervisors, * corresponding author.)

• Wenming Yang, Yapeng Tian, Fei Zhou*, Qingmin Liao, Hai Chen and Chenglin Zheng, "Consistent Coding Scheme for Single-Image Super-Resolution Via Independent Dictionaries," IEEE Trans. Multimedia (TMM), vol. 18, no. 3, pp. 313-325, Mar. 2016.

Conference Publications

- Yapeng Tian, Fei Zhou, Wenming Yang*, Xuesen Shang and Qingmin Liao, "Anchored Neighborhood Regression based Single Image Super-Resolution from Self-Examples," Proceedings of IEEE International Conference on Image Processing (ICIP), 2016
- Wenming Yang, Yapeng Tian, Fei Zhou, Tingrong Yuan, Xuesen Shang and Qingmin Liao, "Single-Image Super-Resolution Using Clustering-Based Global Regres-

sion and Propagation Filtering," Proceedings of Asian Conference on Pattern Recognition (ACPR), 2015. (Oral)

- CHINESE PATENTS Wenming Yang, Yapeng Tian, Fei Zhou, Qingmin Liao, Hai Chen and Chenglin Zheng, "Consistent Coding Scheme for Single-Image Super-Resolution," (with Huawei Technologies Co., Ltd.), Under review.
 - Wenming Yang, Yapeng Tian, Fei Zhou, Qingmin Liao, Hai Chen and Chenglin Zheng, "Relaxed Representation for Single Image Super-Resolution," (with Huawei Technologies Co., Ltd.), Under review.

TEACHING

Teaching Assistant

EXPERIENCE

- Fall 2015: Digital image processing and its applications, Tsinghua University
- Spring 2016: Practice of digital image processing, Tsinghua University

Honors and Awards

• National Scholarship (Top 2%)

2016

• Second-class Scholarship

2015

Professional ACTIVITIES

Attended Conferences

- IEEE International Conference on Image Processing, Phoenix, America Sep. 2016
- Asian Conference on Pattern Recognition, Kuala Lumpur, Malaysia Nov. 2015

Membership

• IEEE Student Member

Skills

- Languages: Mandarin (native), English.
- Programming: MATLAB, C/C++, Python, Keras, Opency, LATEX.