

**Zheng Wang**  
**Project Researcher, Satoh-lab, National Institute of Informatics (NII), Japan**

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**BASIC  
INFORMATION**

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**RESEARCH  
INTERESTS**

Multimedia Content Analysis and Retrieval, such as Person Re-identification and Instance Search.

**EDUCATION**

**Wuhan University**, China

Ph.D., Communication and Information Engineering, Sep. 2012 - Jun. 2017

- Thesis Topic: *Person Re-identification in Complicated Conditions*
- Candidacy: *Instance Search in Large Scale Multimedia Contents*
- Supervisor: **Professor Ruimin Hu**, Dean of School of Computer, Director of NERCMS
- Area of Study: Multimedia Processing and Analysis

M.S., Communication and Information Engineering, Sep. 2006 - Jun. 2008

- Thesis Topic: *Video Surveillance System and Emergency Management System*
- Candidacy: *Video Encoding and Decoding, Software Design*
- Supervisor: **Professor Jun Chen**, Vice Director of NERCMS
- Area of Study: Multimedia Network Communication

B.S., Electronic Information Engineering, Sep. 2002 - Jun. 2006

- Thesis Topic: *Video Surveillance System*

**WORK EXPERIENCE** **National Institute of Informatics, Japan**

*Post-doc Project Researcher*

**Oct. 2017 to Now**

- Research on Multimedia Retrieval

**Videtek Information Technology co., LTD, Wuhan**

*Algorithm Engineer (Part time)*

**Sep. 2012 to Jun. 2017**

- Research and Develop Person Retrieval Algorithm in Surveillance Videos

**Videtek Information Technology co., LTD, Wuhan**

*Software Developer*

**May. 2010 to Aug. 2012**

- Develop Video Transcoding and Video Summarization Products

**China Security and Surveillance Technology, Inc.**

*Senior Software Engineer*

**Jul. 2008 to Apr. 2010**

- Research Safety City and Emergency Management System

**National Engineering Research Center for Multimedia Software**

*Research Assistant*

**Mar. 2006 to Aug. 2006**

- Develop Video Surveillance System

## PUBLICATIONS

- [1] **Zheng Wang**, Ruimin Hu, Yi Yu, Junjun Jiang, Jiayi Ma, Shin'ichi Satoh. Statistical Inference of Gaussian-Laplace Distribution for Person Verification. *ACM Multimedia Conference (ACM MM)*, 2017. **Accepted**
- [2] **Zheng Wang**, Ruimin Hu, Chen Chen, Yi Yu, Junjun Jiang, Chao Liang, Shin'ichi Satoh. Person Re-identification via Discrepancy Matrix and Matrix Metric. *IEEE Transactions on Cybernetics (TCYB)*, 2017. **Accepted**
- [3] **Zheng Wang**, Ruimin Hu, Chao Liang, Yi Yu, Junjun Jiang, Mang Ye, Jun Chen, Qingming Leng. Zero-shot Person Re-identification via Cross-view Consistency. *IEEE Transaction on Multimedia (TMM)*, 2016.
- [4] **Zheng Wang**, Ruimin Hu, Yi Yu, Junjun Jiang, Chao Liang, Jinqiao Wang. Scale-adaptive Low-resolution Person Re-identification via Learning A Discriminating Surface. *International Joint Conference on Artificial Intelligence (IJCAI)*, 2016.
- [5] **Zheng Wang**, Ruimin Hu, Yi Yu, Chao Liang, Wenxin Huang. Person Re-identification with Incomplete Marks. *ACM Multimedia Conference (ACM MM)*, 2015.
- [6] **Zheng Wang**, Ruimin Hu, Chao Liang, Junjun Jiang, Kaimin Sun, Qingming Leng, Bingyue Huang. Person Re-identification Using Data-driven Metric Adaptation. *International Conference on MultiMedia Modelling (MMM)*, 2015.
- [7] **Zheng Wang**, Ruimin Hu, Chao Liang, Qingming Leng, Kaimin Sun. Region-based Interactive Ranking Optimization For Person Re-identification. *Pacific-Rim Conference on Multimedia (PCM)*, 2014. **Best Paper Award**
- [8] **Zheng Wang**, Ruimin Hu, Yi Yu, Chao Liang, Chen Chen. TAICHI Distance for Person Re-identification. *International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2017.
- [9] **Zheng Wang**, Yang Yang, Shuosun Guan, Chenxia Han, Jiamei Lan, Rui Shao, Jinqiao Wang, Chao Liang. WHU-NERCMS at TRECVID2016: Instance Search Task. *TRECVID Workshop*, 2016. **The best performance in the evaluation**
- [10] Mang Ye, Chao Liang, **Zheng Wang**, Qingming Leng, Jun Chen. Ranking Optimization for Person Re-identification via Similarity and Dissimilarity. *ACM Multimedia Conference (ACM MM)*, 2015.
- [11] Jin Wang, **Zheng Wang**, Chao Liang, Changxin Gao, Nong Sang. Equidistance Constrained Metric Learning for Person Re-identification. *Pattern Recognition (PR)*, 2017.
- [12] Jin Wang, **Zheng Wang**, Changxin Gao, Nong Sang, Rui Huang. DeepList: Learning Deep Features with Adaptive Listwise Constraint for Person Re-identification. *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2016.
- [13] Junjun Jiang, Chen Chen, Jiayi Ma, **Zheng Wang**, Zhongyuan Wang, Ruimin Hu. SRL-SP: A Face Image Super-Resolution Algorithm Using Smooth Regression with Local Structure Prior. *IEEE Transactions on Multimedia (TMM)*, 2017.
- [14] Mang Ye, Chao Liang, Yi Yu, **Zheng Wang**, Qingming Leng, Chunxia Xiao, Jun Chen, Ruimin Hu. Person Re-identification via Ranking Aggregation of Similarity Pulling and Dissimilarity Pushing. *IEEE Transactions on Multimedia (TMM)*, 2016.
- [15] Junjun Jiang, Jiayi Ma, Chen Chen, Xinwei Jiang, **Zheng Wang**. Noise Robust Face Image Super-Resolution Through Smooth Sparse Representation. *IEEE Transactions on Cybernetics (TCYB)*, 2016.

- [16] Mang Ye, Chao Liang, **Zheng Wang**, Qingming Leng, Jun Chen, Jun Liu. Specific Person Retrieval via Incomplete Text Description. *ACM International Conference on Multimedia Retrieval (ICMR)*, 2015.
- [17] Mingfu Xiong, Jun Chen, **Zheng Wang**, Zhongyuan Wang, Ruimin Hu, Chao Liang, Daming Shi. Person Re-Identification via Multiple Coarse-to-Fine Deep Metrics. *European Conference on Artificial Intelligence (ECAI)*, 2016.
- [18] Jin Wang, Nong Sang, **Zheng Wang**, Changxin Gao. Similarity Learning with Top-heavy Ranking Loss for Person Re-identification. *IEEE Signal Processing Letters (SPL)*, 2016.
- [19] Mingfu Xiong, Jun Chen, **Zheng Wang**, Chao Liang, Qi Zheng, Zhen Han, Kaimin Sun. Deep Feature Representation via Multiple Stack Auto-encoders. *Pacific-Rim Conference on Multimedia (PCM)*, 2015.
- [20] Jian Qin, Jun Chen, **Zheng Wang**, Jiyang Zhang, Xinyuan Yu, Chunjie Zhang. User's Driven Sports Video Customization and Compressing System for Mobile Devices. *Pacific-Rim Conference on Multimedia (PCM)*, 2015.
- [21] Lei Yao, Jun Chen, Yi Yu, **Zheng Wang**, Wenxin Huang, Mang Ye, Ruimin Hu. Adaptive Margin Nearest Neighbor for Person Re-identification. *Pacific-Rim Conference on Multimedia (PCM)*, 2015.
- [22] Jun Liu, Chao Liang, Mang Ye, **Zheng Wang**, Yang Yang, Zhen Han, Kaimin Sun. Person Re-identification via Attribute Confidence and Saliency. *Pacific-Rim Conference on Multimedia (PCM)*, 2015.
- [23] Wenxin Huang, Ruimin Hu, Chao Liang, Yi Yu, **Zheng Wang**, Xian Zhong, Chunjie Zhang. Camera Network based Person Re-identification by Leveraging Spatial-temporal Constraint and Multiple Cameras Relations. *International Conference on Multi-Media Modelling (MMM)*, 2016.
- [24] Yang Yang, Yuhong Yang, Mang Ye, Wenxin Huang, **Zheng Wang**, Chao Liang, Lei Yao, Chunjie Zhang. Spatial Constrained Fine-grained Color Name for Person Re-identification. *International Conference on MultiMedia Modelling (MMM)*, 2016.
- [25] Bingyue Huang, Jun Chen, Yimin Wang, Chao Liang, **Zheng Wang**, Kaimin Sun. Sparsity-based Occlusion Handling Method for Person Re-identification. *International Conference on MultiMedia Modelling (MMM)*, 2015.
- [26] Mang Ye, Jun Chen, Qingming Leng, Chao Liang, **Zheng Wang**, Kaimin Sun. Coupled-view Based Ranking Optimization for Person Re-identification. *International Conference on MultiMedia Modelling (MMM)*, 2015.
- [27] Xiao Wang, Jun Chen, Chao Liang, Chen Chen, **Zheng Wang**, Ruimin Hu. Low-resolution Pedestrian Detection via A Novel Resolution-score Discriminative Surface. *IEEE International Conference on Multimedia and Expo (ICME)*, 2017.

PARTICIPATED  
GRANTS

- Person Re-identification for Video Investigation, NSFC (Natural Science Foundation of China), ID: 61303114
- Specific Person Search via Text Description, NSFC (Natural Science Foundation of China), ID: 61562048
- Image Analysis and Comparison System, Key Scientific and Technological Project of The Ministry of Public Security, ID: 2008ZDXMHBST011
- Retrieval the Suspected Target in the Surveillance Video, Technology Research Plan of The Ministry of Public Security, ID: 2014JSYJA016

- Person Behavior and Multi-modal Feature Recognition, Technology Research Plan of The Ministry of Public Security, ID: 2016JSYJA12
- The Integrated Service System for Video Investigation, The Joint Project of Wuhan University and Videtek Information Technology

MEETING  
ATTENDANCE

- Vision And Learning SEminar, Xiamen, China, Apr. 21 - 23, 2017
- TRECVID Workshop, Gaithersburg, USA, Nov. 14 - 16, 2016
- International Joint Conference on Artificial Intelligence, New York, USA, Jul. 9 - 15, 2016
- Vision And Learning SEminar, Wuhan, China, Apr. 22 - 24, 2016
- ACM Multimedia Conference, Brisbane, Queensland, Australia, Oct. 26 - 30, 2015
- ACM International Conference on Multimedia Retrieval, Shanghai, China, Jun. 23 - 26, 2015
- Pacific-Rim Conference on Multimedia, Kuching, Sarawak, Malaysia, Dec. 1 - 4, 2014

AWARDS

- ACM-Wuhan and HBCS Excellent Doctoral Dissertation Award, Sep. 2017
- Excellent Graduates, Wuhan University, May. 2017
- Outstanding Paper Award, NERCMS, Dec. 2016
- The Third Prize of Excellent Academic Paper of Natural Science, Hubei Province, China, Nov. 2016
- Academic Innovation Award, Wuhan University, Oct. 2016
- The First Prize of Scientific and Technological Progress Award, Hubei Province, China, Aug. 2016
- Outstanding Student Award, NERCMS, Dec. 2015
- Scholarship of Collaborative Innovation Center of Geospatial Technology, Nov. 2015
- Academic Breakthrough Award, NERCMS, Dec. 2014
- Best Paper Award, Pacific-Rim Conference on Multimedia (PCM), Dec. 2014
- National Scholarship, Dec. 2005