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

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BASIC INFORMATION

I am currently a Post-doc Project Researcher in Satoh-Lab, National Institute of Informatics (NII), Japan, supervised by Prof. Shin'ichi Satoh. I obtained my Ph.D from Wuhan University in 2017. My Ph.D supervisor is Prof. Ruimin Hu, at National Engineering Research Center for Multimedia Software (NERCMS), School of Computer Science, Wuhan University. My research interests focus on person re-identification and instance search. I won the Best Paper Award at the 15th Pacific-Rim Conference on Multimedia (PCM 2014).

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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, Shuosen 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. SRLSP: 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. Users 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-temp oral 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