Kang Zheng, Ph.D.

Senior Research Scientist
PAII Inc.

CONTACT INFORMATION	6720B Rockledge Drive, Suite 410 Bethesda, MD 20817	Tel: +1 (803) 553-7143 Email: zhengkang86@gmail.com

EDUCATION

University of South Carolina, Columbia, SC, USA — Aug. 2012 – Aug. 2019

Ph.D. in Computer Science and Engineering
Advisor: Song Wang

Harbin Institute of Technology, Harbin, China — Aug. 2008 – Jul. 2012

B.E. in Electrical Engineering

EXPERIENCES

PAII Inc. — Bethesda, MD, USA
Senior Research Scientist — Aug. 2019 –

PAII Inc. — Bethesda, MD, USA
Research Intern — Feb. – Jun. 2019

HERE North America — Chicago, IL, USA
Research Intern — Jul. – Oct. 2017

RESEARCH INTERESTS

Computer vision, Deep learning
Medical image analysis

PUBLICATIONS

[22] Y. Lu, **K. Zheng**, W. Li, Y. Wang, A. Harrison, C. Lin, S. Wang, J. Xiao, L. Lu, CF. Kuo, S. Miao, *"Contour Transformer Network for One-shot Segmentation of Anatomical Structures"*, IEEE Transactions on Medical Imaging 2020.

[21] **K. Zheng**, Y Wang, L Lu, C Hsieh, C Kuo, S Miao, *"Consistent and Coherent Computer-Aided Knee Osteoarthritis Assessment from Plain Radiographs"*, RSNA 2020.

[20] W. Li, Y. Lu, **K. Zheng**, H. Liao, C. Lin, J. Luo, CT Cheng, J. Xiao, L. Lu, CF Kuo, S. Miao, *"Cross-domain Structured Landmark Detection via Progressive Topology-Adapting Deep Graph Learning"*, ECCV 2020.

[19] H. Chen, Y. Wang, **K. Zheng**, W. Li, CT Cheng, A. Harrison, J. Xiao, G. Hager, L. Lu, C. Liao, S. Miao, *"Anatomy-Aware Siamese Network: Exploiting Semantic Asymmetry for Accurate Pelvic Fracture Detection"*, ECCV 2020.

[18] Y. Lu, W. Li, **K. Zheng**, Y. Wang, A. Harrison, C. Lin, J. Xiao, L. Lu, S. Wang, CF. Kuo, S. Miao, *"Learning to Segment Anatomical Structures Accurately from One Exemplar"*, MICCAI 2020.

[17] H. Yu, **K. Zheng**, J. Fang, H. Guo, S. Wang. *"A New Method and Benchmark for Detecting Co-Saliency within a Single Image"*, IEEE Transactions on Multimedia, 2020.

[16] Y. Mi, **K. Zheng**, S. Wang. *"Homography Estimation along Short Videos by Recurrent Convolutional Regression Network"*, Mathematical Foundations of Computing, 2020.

[15] S. Song, H. Yu, Z. Miao, J. Fang, K. Zheng, C. Ma, S. Wang. *"Multi-spectral Salient Object Detection by Adversarial Domain Adaptation"*, In AAAI, 2020.

[14] D. Guo, Y. Pei, **K. Zheng**, H. Yu, Y. Lu, S. Wang, *"Degraded Image Semantic Segmentation with Dense-Gram Networks"*, IEEE Transactions on Image Processing, 2019.

[13] H. Guo, **K. Zheng**, X. Fan, H. Yu, S. Wang, *"Visual Attention Consistency under Image Transforms for Multi-Label Image Classification"*, In CVPR, 2019.

[12] G. Liang, X. Lan, X. Chen, **K. Zheng**, S. Wang, N. Zheng. *"Cross-View Person Identification based on Confidence-Weighted Human Pose Matching*, IEEE Transactions on Image Processing, 2019.

[11] Y. Mi, **K. Zheng**, S. Wang, *"Recognizing Actions in Wearable-Camera Videos by Training Classifiers on Fixed-Camera Videos"*, In ICMR, 2018.

[10] G. Liang, X. Lan, **K. Zheng**, S. Wang, N. Zheng, *"Cross-View Person Identification by Matching Human Poses Estimated with Confidence on Each Body Joint"*, In AAAI, 2018.

[9] H. Yu, **K. Zheng**, J. Fang, H. Guo, W. Feng, S. Wang, *"Co-Saliency Detection within a Single Image"*, In AAAI, 2018.

[8] **K. Zheng**, X. Fan, Y. Lin, H. Guo, H. Yu, D. Guo, S. Wang, *"Learning View-Invariant Features for Person Identification in Temporally Synchronized Videos Taken by Wearable Cameras"*, In ICCV, 2017.

[7] D. Guo, **K. Zheng**, S. Wang, *"Lesion Detection Using T1-Weighted MRI: A New Approach Based on Functional Cortical ROIs"*, In ICIP, 2017.

[6] **K. Zheng**, H. Guo, X. Fan, H. Yu, S. Wang, *"Identifying Same Persons from Temporally Synchronized Videos Taken by Multiple Wearable Cameras"*, In CVPR Workshop, 2016.

[5] D. Guo, J. Fridriksson, P. Fillmore, C. Rorden, H. Yu, **K. Zheng**, S. Wang, *"Automated lesion detection on MRI scans using combined unsupervised and supervised methods"*, BMC Medical Imaging, 2015.

[4] X. Fan, **K. Zheng**, Y. Lin, S. Wang, *"Combining Local Appearance and Holistic View: Dual-Source Deep Neural Networks for Human Pose Estimation"*, In CVPR, 2015.

[3] Dhaval Salvi, **K. Zheng**, Y. Zhou, S. Wang, *"Distance Transform Based Active Contour Approach for Document Image Rectification"*, In WACV, 2015.

[2] **K. Zheng***, Y. Lin*, Y. Zhou, D. Salvi, X. Fan, D. Guo, Z. Meng, S. Wang, *"Video-based Action Detection using Multiple Wearable Cameras"*, In ECCV Workshop, 2014.

[1] X. Fan, **K. Zheng**, Y. Zhou, S. Wang, *"Pose Locality Constrained Representation for 3D Human Pose Reconstruction"*, In ECCV, 2014.

<table>
<tr><td>PROFESSIONAL
SERVICES</td><td>

Journal Reviewer
IEEE Transactions on Pattern Analysis and Machine Intelligence
IEEE Transactions on Circuits and Systems for Video Technology
IEEE Transactions on Image Processing
IEEE Transactions on Medical Imaging
IEEE Signal Processing Letters
Pattern Recognition Letters
Computerized Medical Imaging and Graphics

Conference Reviewer
MICCAI 2020, 2021
CVPR 2021, 2020, 2019
ECCV 2020
ICCV 2019
AAAI 2021, 2020, 2019, 2018
IJCAI 2019, 2018
ICPR 2020, 2016

Program Committee
AAAI 2020, 2019, 2018
IJCAI 2018

</td></tr>
</table>

Skills   **Programming**: Python, Matlab, C/C++, Java
                              Open-source libraries: PyTorch, Caffe, Keras, OpenCV **Languages**: Chinese, English