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Senior Research Scientist, PAII Inc.

GOOGLE SCHOLAR <https://scholar.google.com/citations?user=bMDB5WEAAAAJ>

CONTACT INFORMATION	6720B Rockledge Drive, Suite 410 Bethesda, MD 20817	Tel: +1 (803) 553-7143 Email: zhengkang86@gmail.com
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EDUCATION	University of South Carolina , Columbia, SC, USA	Aug. 2012 – Aug. 2019
	Ph.D. in Computer Science and Engineering	
	Harbin Institute of Technology , Harbin, Heilongjiang, China	Aug. 2008 – Jul. 2012
	B.E. in Electrical Engineering	

EXPERIENCES	PAII Inc. Senior Research Scientist	Bethesda, MD, USA Aug. 2019 –
	PAII Inc. Research Intern	Bethesda, MD, USA Feb. – Jun. 2019
	HERE North America Research Intern	Chicago, IL, USA Jul. – Oct. 2017

RESEARCH INTERESTS	Computer vision, Deep learning Medical image analysis
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FULL-LENGTH PUBLICATIONS	Y. Lu, K. Zheng , W. Li, Y. Wang, A. Harrison, C. Lin, S. Wang, J. Xiao, L. Lu, CF. Kuo, S. Miao: “ <i>Contour Transformer Network for One-shot Segmentation of Anatomical Structures</i> ”, IEEE Transactions on Medical Imaging 2020.
	W. Li, Y. Lu, K. Zheng , H. Liao, C. Lin, J. Luo, CT Cheng, J. Xiao, L. Lu, CF Kuo, S. Miao: “ <i>Structured Landmark Detection via Topology-Adapting Deep Graph Learning</i> ”, ECCV, 2020.
	H. Chen, Y. Wang, K. Zheng , W. Li, CT Cheng, A. Harrison, J. Xiao, G. Hager, L. Lu, C. Liao, S. Miao: “ <i>Anatomy-Aware Siamese Network: Exploiting Semantic Asymmetry for Accurate Pelvic Fracture Detection</i> ”, ECCV, 2020.
	Y. Lu, W. Li, K. Zheng , Y. Wang, A. Harrison, C. Lin, J. Xiao, L. Lu, S. Wang, CF. Kuo, S. Miao: “ <i>Learning to Segment Anatomical Structures Accurately from One Exemplar</i> ”, MICCAI, 2020.
	H. Yu, K. Zheng , J. Fang, H. Guo, S. Wang. “ <i>A New Method and Benchmark for Detecting Co-Saliency within a Single Image</i> ”, IEEE Transactions on Multimedia, 2020.
	Y. Mi, K. Zheng , S. Wang. “ <i>Homography Estimation along Short Videos by Recurrent Convolutional Regression Network</i> ”, Mathematical Foundations of Computing, 2020.

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

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.

H. Guo, **K. Zheng**, X. Fan, H. Yu, S. Wang: “*Visual Attention Consistency under Image Transforms for Multi-Label Image Classification*”, CVPR, 2019.

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.

Y. Mi, **K. Zheng**, S. Wang: “*Recognizing Actions in Wearable-Camera Videos by Training Classifiers on Fixed-Camera Videos*”, ICMR, 2018.

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*”, AAAI, 2018.

H. Yu, **K. Zheng**, J. Fang, H. Guo, W. Feng, S. Wang: “*Co-Saliency Detection within a Single Image*”, AAAI, 2018.

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*”, ICCV, 2017.

D. Guo, **K. Zheng**, S. Wang: “*Lesion Detection Using T1-Weighted MRI: A New Approach Based on Functional Cortical ROIs*”, ICIP, 2017.

K. Zheng, H. Guo, X. Fan, H. Yu, S. Wang: “*Identifying Same Persons from Temporally Synchronized Videos Taken by Multiple Wearable Cameras*”, CVPR Workshop, 2016.

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.

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

D. Salvi, **K. Zheng**, Y. Zhou, S. Wang: “*Distance Transform Based Active Contour Approach for Document Image Rectification*”, WACV, 2015.

K. Zheng*, Y. Lin*, Y. Zhou, D. Salvi, X. Fan, D. Guo, Z. Meng, S. Wang: “*Video-based Action Detection using Multiple Wearable Cameras*”, ECCV Workshop, 2014.

X. Fan, **K. Zheng**, Y. Zhou, S. Wang: “*Pose Locality Constrained Representation for 3D Human Pose Reconstruction*”, ECCV, 2014.

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.

C. Kuo, S. Miao, **K. Zheng**, L. Lu, C. Hsieh, C. Lin, T. Fan: "*Prediction of low bone mineral density and FRAX score by assessing hip bone texture with deep learning*", EULAR 2020.

C. Kuo, **K. Zheng**, S. Miao, L. Lu, C. Hsieh, C. Lin, T. Fan: "*Predictive value of bone texture features extracted by deep learning models for the detection of osteoarthritis: data from the Osteoarthritis Initiative*", EULAR 2020.

C. Kuo, S. Miao, **K. Zheng**, C. Hsieh, L. Lu, C. Lin: "*Bone texture analysis with deep learning in hand radiographs for assessing the risk of rheumatoid arthritis*", EULAR 2020.

PATENT
APPLICATIONS

K. Zheng, Y. Wang, S. Miao, C. Kuo, C. Hsieh: "*Estimating Bone Mineral Density from Plain Radiograph by Assessing Bone Texture with Deep Learning*", USPTO non-provisional patent (17/142,187), filed on Jan. 5, 2021.

S. Miao, F. Wang, **K. Zheng**, L. Lu: "*Automatic Vertebra Localization and Identification in CT by Spine Rectification and Anatomically-Constrained Optimization*", USPTO provisional patent (63/120,693), filed on Dec. 2, 2020.

Y. Wang, H. Chen, **K. Zheng**, A. Harrison, L. Lu, S. Miao: "*Device and Method for Computer-Aided Diagnosis Based on Image*", USPTO non-provisional patent (16/850,622), filed on Apr. 16, 2020.

K. Zheng, Y. Lu, W. Li, Y. Wang, A. Harrison, L. Lu, S. Miao: "*Contour Transformer Network: Learning to Segment Anatomical Structures from One Exemplar*", USPTO provisional patent (62/988,628), filed on Mar. 12, 2020.

PROFESSIONAL
SERVICES

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
Computers in Biology and Medicine

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