

Cheng Zhang

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Education

Ph.D. in Computer Science and Engineering 01/2017 - present

The Ohio State University (OSU), OH, U.S.

Advisor: Prof. Dong Xuan and Prof. Chunyi Peng

M.S. in Computer Science and Engineering 2013 - 2016

Beijing University of Posts and Telecommunications (BUPT), Beijing, China

Thesis: Research on Key Techniques of Gait Recognition based on Deep Learning (Best Thesis) [[thesis](#)][[slides](#)]

Advisor: Prof. Huadong Ma

B.S. in Computer Software 2009 - 2013

Tianjin University (TJU), Tianjin, China

Thesis: Minimum Topological Discrepancy Grid of Superpixels for Fast Object Localization (Best Thesis) [[thesis](#)][[slides](#)]

Advisor: Prof. Wei Feng

Research Interests

Mobile and Robot System | Computer Vision and Multimedia

Experience

DeepCode Robotics, Shanghai, China 05/2017 - 08/2017, 05/2018 - 08/2018

Intern, Mentor: Fan Yang and Qiang Zhai

I worked on developing novel algorithms and systems for real-time sports analysis and robot planning. [[INFOCOM'18](#)]

China Academy of Telecommunication Research of MIIT, Beijing, China 04/2016 - 12/2016

Research Assistant in Institute of Standards and Technology, Mentor: Kai Wei

I worked on standardization for big data computing platform, e.g., Spark and Hadoop. [[slides](#)]

Beijing University of Posts and Telecommunications, Beijing, China 09/2013 - 04/2016

Graduate Research Assistant, Advisor: Huadong Ma, Wu Liu and Liang Liu

I worked on applying computer vision algorithms to solve real-world applications such as human identification [[ICASSP'16](#)] [[Neuroinformatics'18](#)], vision-based air quality monitoring [[IMWUT'18](#)], low resolution face restoration [PR'18] and inter-camera object tracking [[HHME'15](#)].

Alibaba, Beijing, China 07/2015 - 09/2015

Intern in Multimedia Team (currently iDST), Mentor: Xian-Sheng Hua and Pan (Phil) Pan

I worked on large-scale image categorization for Pailitao product - the visual search service on Mobile Taobao. [[slides](#)]

Huawei, Beijing, China 08/2014 - 04/2015

Intern in 2012 Laboratories, Mentor: Ke Xia

I worked on using machine learning methods to automatically detect high risk BOM products for Huawei HUMMER early warning system. (Joint project between BUPT and Huawei)

Tianjin University, Tianjin, China 09/2011 - 06/2013

Undergraduate student in Media Computing Group, Advisor: Wei Feng

I worked on superpixel gridization for fast object localization. [[slides](#)]

Publications

Conference Proceedings

1. **MV-Sports: A Motion and Vision Sensor Integration-Based Sports Analysis System**
Cheng Zhang, Fan Yang, Gang Li, Qiang Zhai, Yi Jiang, Dong Xuan
IEEE International Conference on Computer Communications (INFOCOM), 2018
2. **Third-Eye: A Mobilephone-Enabled Crowdsensing System for Air Quality Monitoring**
Liang Liu, Wu Liu, Yu Zheng, Huadong Ma, **Cheng Zhang**
ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp), 2018
3. **Siamese Neural Network based Gait Recognition for Human Identification**
Cheng Zhang, Wu Liu, Huadong Ma, Huiyuan Fu
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2016

Journal Articles

1. **Nighttime Face Restoration with Only Visible Spectral Based on Sparse Representation**
Huiyuan Fu, **Cheng Zhang**, Huadong Ma, Xinpeng Wang
Pattern Recognition, 2018 (under major revision)
2. **Learning Efficient Spatial-Temporal Gait Features with Deep Learning for Human Identification**
Wu Liu, **Cheng Zhang**, Huadong Ma, Shuangqun Li
Neuroinformatics, 2018
3. **Scene-free Multi-class Weather Classification on Single Images**
Zheng Zhang, Huadong Ma, Huiyuan Fu, **Cheng Zhang**
Neurocomputing, 2016
4. **Outdoor Air Quality Level Inference via Surveillance Cameras**
Zheng Zhang, Huadong Ma, Liang Liu, Huiyuan Fu, **Cheng Zhang**
Mobile Information Systems, 2016
5. **Object Tracking in Surveillance Videos Using Spatial-temporal Correlation Graph Model**
Cheng Zhang, Huadong Ma, Huiyuan Fu
Journal of Beijing University of Aeronautics and Astronautics, 2015

Patents

1. **Method and Device for Gait Recognition**
Huadong Ma, Wu Liu, Huiyuan Fu, **Cheng Zhang**
US Patent, 9633268

Honors and Awards

Ph.D. in Ohio State

IEEE Communication Society Student Travel Grant Award, 2018

Ranked No.3 in Look into Person Challenge: Human Pose Estimation (in conjunction with CVPR 2017)

M.S. in BUPT

Best Master's Thesis, BUPT, 2016

IEEE Signal Processing Society Student Travel Grant Award, 2016

Excellent Graduate, Beijing City, 2016

National Scholarship, Ministry of Education, China, 2015

VMware Excellent Scholarship, 2014

B.S. in Tianjin University

Best Undergraduate Thesis, 2013

Excellent Graduate, TJU, 2013

Hitachi Scholarship, 2012

Golden Award, the 8th Challenge Cup Innovation Competition, China, 2012

Weichai Power Scholarship (twice), 2010 and 2011

Professional Activities

Reviewer for Journals

ACM Transactions on Sensor Networks (ToSN), 2016-

Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2017-

Machine Vision and Applications (MVA), Springer, 2017-

Reviewer for Conferences

IEEE International Conference on Image Processing (ICIP), 2017, 2018

IEEE Global Conference on Signal and Information Processing (GlobalSIP), 2017

Teaching Experience

Beijing University of Posts and Telecommunications, Fall 2015*Teaching Assistant, Computer Graphics*, Instructor: Prof. Haitao Zhang

Skills

Language

C/C++, Python, Matlab, Scala, Shell, CUDA

Tool

Pytorch, Caffe, Tensorflow, Darknet