Cheng Zhang

The Ohio State University
Dept. of Computer Science & Engineering
2015 Neil Avenue
Columbus, OH 43210

Phone: 614-264-0299 (US)
Email: zhang.7804@osu.edu
Homepage: https://czhang0528.github.io/
GitHub: https://github.com/czhang0528/

Research Interests

Machine Learning, Computer Vision, and Mobile Sensing

Education

The Ohio State University (OSU), OH, U.S. *01/2017 - present*
Ph.D. in Computer Science and Engineering
Advisor: Wei-Lun Harry Chao and *Dong Xuan*

Beijing University of Posts and Telecommunications (BUPT), Beijing, China *2013 - 2016*
M.S. in Computer Science and Engineering
Thesis: Research on Key Techniques of Gait Recognition based on Deep Learning
Advisor: Huadong Ma

Tianjin University (TJU), Tianjin, China *2009 - 2013*
B.S. in Computer Software
Thesis: Minimum Topological Discrepancy Grid of Superpixels for Fast Object Localization
Advisor: Wei Feng

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)**, Honolulu, HI, USA, Apr 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)**, Singapore, Oct 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)**, Shanghai, China, Mar 2016*

Journal Articles

1. **Third-Eye: A Mobilephone-Enabled Crowdsensing System for Air Quality Monitoring**
Liang Liu, Wu Liu, Yu Zheng, Huadong Ma, **Cheng Zhang**
*Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies **(IMWUT)**, Mar 2018*

2. **Learning Efficient Spatial-Temporal Gait Features with Deep Learning for Human Identification**
Wu Liu, **Cheng Zhang**, Huadong Ma, Shuangqun Li
Neuroinformatics, Feb 2018

3. **Scene-free Multi-class Weather Classification on Single Images**
Zheng Zhang, Huadong Ma, Huiyuan Fu, **Cheng Zhang**
Neurocomputing, May 2016

Patents

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

Research Experience

Ohio State University, OH, USA *09/2018 - present*
Research Associate, Advisor: Wei-Lun Harry Chao
I am working on training with limited data, and vision-language related topics. In particular, I am investigating new models such as graph neural nets and meta learning.

Fuji Xerox Palo Alto Laboratory (FXPAL), CA, USA *05/2019 - 08/2019*
Research Intern, Mentor: Francine Chen and Yan-Ying Chen
I worked on image-text grounding for medical applications.

DeepCode Robotics, Shanghai, China *05/2017 - 08/2017, 05/2018 - 08/2018*
Research Intern, Advisor: Dong Xuan
I worked on developing novel algorithms and systems for real-time sports analysis and robot planning. [INFOCOM'18]

Beijing University of Posts and Telecommunications, Beijing, China *09/2013 - 04/2016*
Research Associate, Advisor: Huadong Ma
I worked on applying computer vision algorithms to solve real-word problems such as human identification [ICASSP'16] [Neuroinformatics'18], vision-based air quality monitoring [IMWUT'18], and inter-camera object tracking [HHME'15].

Alibaba, Beijing, China *07/2015 - 09/2015*
Intern in Multimedia Team (currently DAMO Academy), Mentor: Xian-Sheng Hua and Pan Pan
I worked on large-scale image categorization for Pailitao product - the visual search service on Mobile Taobao. [slides]

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]

Honors and Awards

Ph.D. at Ohio State
IEEE INFOCOM Student Travel Grant Award, 2018
Ranked No.3 in Look into Person Challenge: Multi-Human Pose Estimation (with CVPR 2018)
Ranked No.3 in Look into Person Challenge: Single Person Human Pose Estimation : (with CVPR 2017)

M.S. at BUPT
Best Master's Thesis, BUPT, 2016
IEEE ICASSP Student Travel Grant Award, 2016
Excellent Graduate, Beijing City, 2016
National Scholarship, Ministry of Education, China, 2015
VMware Excellent Scholarship, 2014

B.S. at 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

Program Committee Member
ACM Multimedia 2019 (Understanding - Multimodal fusion and embedding)

Reviewer for Journals
ACM Transactions on Sensor Networks (ToSN)
PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)
Machine Vision and Applications (MVA), Springer
Multimedia Tools and Applications (MTAP), Springer

Reviewer for Conferences
ACM MM'19, IEEE ICME19, IEEE INFOCOM19, IEEE ICIP17-19, IEEE GlobalSIP17-18

Teaching

The Ohio State University
CSE 1222: Introduction to Computer Programming in C++, Spring 2019, Instructor
CSE 4471: Information Security, Fall 2018, Teaching Assistant
CSE 5432: Mobile Handset Systems and Networking, Fall 2018, Teaching Assistant

Beijing University of Posts and Telecommunications
Computer Graphics, Fall 2015, Teaching Assistant

Skills

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

Tool
PyTorch, Caffe/Caffe2, Tensorflow, Darknet

Graduate Coursework

Machine Learning, Image Processing, Speech and Natural Language Processing, Real-Time Robotics, Multimedia Computing, Advanced Artificial Intelligence, Mobile Robotics with Wireless Technology and Machine Learning, Advanced Operating System, Foundations of Programming Languages, and Algorithm

Last updated: May 29, 2019