Zhe Wang

CONTACT Information

3nd year PhD Student Department of Computer Science The University of Arizona Cell: +1-(520)3699297

E-mail: zhew@email.arizona.edu Web: www.z-wang.com

RESEARCH INTERESTS

EDUCATION

Big Data Visualization, Exploratory Data Analysis, Data Visualization Systems

The University of Arizona Tucson, AZ, USA

Aug. 2014 to present

PhD Student, Department of Computer Science

• Advisor: Dr. Carlos Scheidegger

• I also worked with Dr. Richard T. Snodgrass

Chinese Academy of Sciences Beijing, China

Sep. 2011 to June 2014

M.S., Institute of Computing Technology (ICT)

• Advisor: Dr. Hong Liu

Northeast Normal University Changchun, China

Sep. 2007 to June 2011

B.E., College of Software Engineering

• Major: Software Engineering

RESEARCH PROJECTS

Gaussian Cubes (Sep. 2015 to present)

• Real-Time Modeling for Visual Exploration of Large Multidimensional Datasets

ANTARES (Aug. 2014 to present)

- The Arizona-NOAO Temporal Analysis and Response to Events System
- Architecture Team Member (Aug. 2014 to present)
- Visualization Team Member (Aug. 2015 to present)
- Chief Programmer (Aug. 2015 to present)

Obstacle Avoidance System for the Blind (June 2012 to May 2014 - M.S. Thesis Project)

- An electronic travel aid to help the visually impaired walk safely using RGB-D sensors
- Primary Researcher & Programmer

3D Scanning and Printing System (June 2013 to July 2013)

- Reconstruct the 3D model of an object in real time using Kinect and KinFu for 3D printer
- Primary Researcher & Programmer Printers

Crowd Density Estimation (Sep. 2011 to June 2012)

- Propose a novel feature for crowd density estimation: the Local Binary Pattern Co-Occurrence Matrix
- Primary Researcher & Programmer

KidSpark (Sep 2009 to Apr. 2010)

- Use a projector and a infrared pen to turn a plane wall into an interactive white board
- Software Team Member

PUBLICATIONS

- [1] **Zhe Wang**, Nivan Ferreira, Youhao Wei, Aarthy Bhaskar, Carlos Scheidegger. Gaussian Cubes: Real-Time Modeling for Visual Exploration of Large Multidimensional Datasets. *Accepted to IEEE InfoVis 2016, IEEE TVCG, to apper.*
- [2] Abhijit Saha, Zhe Wang, Thomas Matheson, et al. "ANTARES: Progress towards building a Broker of time-domain alerts". In: Proc. SPIE 9910, Observatory Operations: Strategies, Processes, and Systems VI, 99100F (July 18, 2016)
- [3] Zhe Wang, Hong Liu, Xiangdong Wang, and Yueliang Qian. Segment and Label Indoor Scene based on RGB-D for the Visually Impaired. In: *International Con*ference on Multimedia Modeling(MMM), 2014. (Accepted as oral presentation)
- [4] Hong Liu, Zhe Wang, Xiangdong Wang, Guoying Zhao, and Yueliang Qian. Adaptive Scene Segmentation and Obstacle Detection for the Blind. *Journal of Computer-Aided Design and Computer Graphics*(JCAD), 25(12), 1818-1825, 2013.
- [5] Zhe Wang, Hong Liu, Yueliang Qian, and Tao Xu. Real-Time Plane Segmentation and Obstacle Detection of 3D Point Clouds for Indoor Scenes. In: The 2nd Workshop on Consumer Depth Cameras for Computer Vision, in conjunction with European Conference on Computer Vision (ECCV), 2012.
- [6] Zhe Wang, Hong Liu, Yueliang Qian, and Tao Xu. Crowd Density Estimation Based On Local Binary Pattern Co-Occurrence Matrix. In: the 2nd IEEE International Workshop on Advances in Automated Multimedia Surveillance for Public Safety, in conjunction with IEEE International Conference on Multimedia and Expo (ICME), 2012.
- [7] Tao Xu, Hong Liu, Yueliang Qian and Zhe Wang. A Fast and Roust Pedestrian Detection Framework based on Static and Dynamic Information. In: IEEE International Conference on Multimedia and Expo (ICME). 2012.

Work Experience

Department of Computer Science, The University of Arizona

Tucson, AZ, USA

• Research Assistant

Aug. 2014 to present

Institute of Computing Technology, Chinese Academy of Science Beijing, China

• Research Assistant

Sep. 2011 to June 2014

Jingshi Information Technology Co., Ltd.

Hangzhou, China

• Co-Founder

Apr. 2011 to July 2013

IDEAL Research Institute of Information Technology, Northeast Normal University

Changchun, China

• Research Assistant

Sep. 2008 to Sep. 2010

AWARDS

- Dongshi Medal, NENU (top 38 students of the university) (2011)
- National Second Prize in Microsoft Imagine Cup Software Design (top 3 projects in China) (2010)
- National Second Prize in Microsoft Imagine Cup Multipoint Education Award (top 2 projects in China) (2009)
- Presidential Scholarship, NENU (top 1% students) (2008, 2009, 2010, 2011)