Bingbing Zhuang

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Education

2015–Present	**Ph.D. Candidate in Electrical and Computer Engineering**. National University of Singapore advisors: Loong Fah Cheong, Gim Hee Lee
2011–2015	**Bachelor in Electric Engineering and Information Science**. University of Science and Technology of China (USTC), Hefei, China GPA: 3.96/4.30, Rank: 3/105; Math GPA: 4.20/4.30

Research Interests

3D Computer Vision in general, especially in Structure-from-Motion/SLAM and 3D reconstruction, and its application to robotics.

Experience

2018 Jun.-Nov.	**Research Intern**, NEC Labtoratories America, CA. Mentors: Prof. Manmohan Chandraker, Dr. Quoc-Huy Tran and Dr. Pan Ji in the Media Analytics group. Research on robust Structure-from-Motion and SLAM on unconstrained video.
2014 Jul.-Aug.	**Research Intern**, *Computer Science*, The University of Hong Kong. Advisor: Prof. Yizhou Yu. Research on Person Re-identification problem based on metric learning and post-rank optimization
2014 Jun. -2015 Jun.	**Research Engineer**, *Information Processing Center*, USTC. Advisor: Prof. Nenghai Yu. Research on abnormal event detection in video based on sparse coding.

Publication

Bingbing Zhuang, Quoc-Huy Tran, Pan Ji, Loong-Fah Cheong, Manmohan Chandraker.

Learning Structure-and-Motion Aware Rolling Shutter Correction.

Computer Vision and Pattern Recognition (**CVPR**), 2019. ***Oral Presentation***

Bingbing Zhuang, Quoc-Huy Tran, Gim Hee Lee, Loong-Fah Cheong, Manmohan Chandraker.

Degeneracy in Self-Calibration and a Deep Learning Solution for Uncalibrated SLAM.

IEEE/RSJ International Conference on Intelligent Robots and Systems(**IROS**), 2019. Under Review.

Bingbing Zhuang, Loong-Fah Cheong, Gim Hee Lee.

Baseline Desensitizing In Translation Averaging.

Computer Vision and Pattern Recognition (**CVPR**), 2018.

Bingbing Zhuang, Loong-Fah Cheong, Gim Hee Lee.

Rolling-Shutter-Aware Differential SfM and Image Rectification.

International Conference on Computer Vision (**ICCV**), 2017.

Bingbing Zhuang, Ziping Zhu, Fangbemi Abassin Sourou, Nenghai Yu.

Person Re-Identification by the marriage of KISS Metric Learning and Post-Rank Optimization: KISSPOP.

International Conference on Internet Multimedia Computing and Service (**ICIMCS**), 2015

Selected Awards

2015-2019	President's Graduate Fellowship, NUS
2015	Excellent Bachelor's Thesis Award (Top 5%), USTC
2015	Honorary Rank of Academic Achievement of the Grade 2011 Undergraduates (Top 5%), USTC
2011-2015	Top 3 cumulative GPA in the department of EEIS, USTC
2011-2015	Numerous Scholarships, USTC
2010	Province First Prize in China National Physics Olympiad

Patent Applications

Camera Self-Calibration Using Convolutional Neural Networks with Applications to SFM/SLAM with Uncalibrated Images/Videos

Q.-H. Tran, B. Zhuang, P. Ji, and M. Chandraker

NEC Laboratories America, Inc. (provisional application US/62/793,948, filed on Jan 2019)

Rolling Shutter Correction Using Convolutional Neural Networks with Applications to SFM/SLAM with Rolling Shutter Images/Videos

Q.-H. Tran, B. Zhuang, P. Ji, and M. Chandraker

NEC Laboratories America, Inc. (provisional application US/62/751,888, filed on Oct 2018)

Professional Services

Reviewer	Computer Vision and Patter Recognition (CVPR)
	International Conference on Computer Vision (ICCV)
	The Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP)

Teaching Assistant

2017 Fall	EE5731 Visual Computing, NUS
2016-2018 Spring	EE4212 Computer Vision, NUS
2016 Fall	CG3207 Computer Architecture, NUS
2014 Fall	Programming in C language, USTC