Sizhuo Ma

Department of Computer Sciences, University of Wisconsin-Madison
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Research Interest

Computer Vision, Computational Imaging

Education

Dec. 2016 – *Present*
Ph.D. of Computer Sciences, University of Wisconsin-Madison

Aug. 2014 – Dec. 2016
M.S. of Computer Sciences, University of Wisconsin-Madison
GPA: 3.92/4.00

Sep. 2010 – July. 2014
B.S. of Computer Science and Engineering, Shanghai Jiao Tong University, China
GPA: 90.3/100

Work Experience

May. 2016 – *Present*
WISION Lab, University of Wisconsin-Madison
Graduate Research Assistant
Advisor: Professor Mohit Gupta

- Develop novel camera system designs and algorithms for geometric, motion-related computer vision problems.

May. 2020 – Aug. 2020
Snap Research
Research Intern, Computational Imaging Team
Supervisor: Shree Nayar

Jan. 2016 – May. 2016
Living Environments Lab, University of Wisconsin-Madison
Graduate Research Assistant
Advisor: Professor Kevin Ponto

- Built prototypes for AR applications on mobile devices, using hardware/software platforms including Google Project Tango, Vuforia, and Unity.

Sep. 2012 – Jun. 2014
Visual Media and Data Management Lab, Shanghai Jiao Tong University
Undergraduate Research Assistant
Advisor: Professor Bin Sheng

- Implemented a real-time, monocular, dense SLAM system in C++ as a platform for AR applications.

Teaching Experience

Sep. 2015 – Jan. 2016
Teaching Assistant
CS301: Introduction to Data Programming (Python)
University of Wisconsin-Madison

Sep. 2014 – May. 2015
Teaching Assistant
CS302: Introduction to Programming (Java)
University of Wisconsin-Madison

Publications

2020	**Sizhuo Ma**, Mohit Gupta. Inertial Safety from Structured Light. *European Conference on Computer Vision (ECCV 2020)*
2020	**Sizhuo Ma**, Shantanu Gupta, Arin C. Ulku, Claudio Bruschini, Edoardo Charbon, Mohit Gupta. Quanta Burst Photography. *SIGGRAPH 2020*
2019	**Sizhuo Ma**, Brandon M. Smith, Mohit Gupta. Differential Scene Flow from Light Field Gradients. *International Journal on Computer Vision (IJCV) Special Issue on Best Papers of ECCV 2018*
2018	**Sizhuo Ma**, Brandon M. Smith, Mohit Gupta. 3D Scene Flow from 4D Light Field Gradients. *European Conference on Computer Vision (ECCV 2018)* [**Oral presentation**]

Patent

Systems, Methods, and Media for Determining Object Motion in Three Dimensions from Light Field Image Data, US Patent US10706564B2

Honors and Awards

2020	Snap Research Fellowship
2012	Shanghai Municipal Scholarship
2011 – 2012	SJTU Academic Excellence Scholarship

Skills

Programming Languages:	C, C++, Java, C#, Python, MATLAB
Operating Systems:	Windows, Linux, Android
Tools/Libraries:	OpenGL, Unity, Blender, OpenCV, CUDA
Languages:	English (Proficient), Chinese (Native), Japanese (JLPT N1)