

Sunghoon Im

CONTACT INFORMATION	Room 211, Bldg N1, KAIST 291 Daehak-ro, Yuseong-gu, Daejeon 305-701 Republic of Korea	Tel.: +82-42-350-5465 E-mail: sunghoonim27@gmail.com https://sites.google.com/site/shimrcv/
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RESEARCH INTERESTS	<ul style="list-style-type: none">• 3D Computer Vision• Computational Photography• Deep Learning
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EDUCATION	<p>KAIST, Daejeon, Korea</p> <p>Ph.D. Student, Electrical Engineering, Mar 2016 - Present</p> <ul style="list-style-type: none">• Advisor: Prof. In So Kweon <p>M.S., Electrical Engineering, Feb 2016</p> <ul style="list-style-type: none">• Thesis: "Structure from Small Motion for Hand-held Cameras"• Advisor: Prof. In So Kweon• GPA: 3.81/4.3 <p>Sogang University, Seoul, Korea</p> <p>B.S., Electronic Engineering, Feb 2014</p> <ul style="list-style-type: none">• Summa cum laude (GPA: 3.91/4.3)
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RESEARCH EXPERIENCES	<p>Microsoft Research Asia, Beijing, China <i>Research Intern</i>, Internet Graphics Group Feb 2018 – Present</p> <p>KAIST, Daejeon, Korea <i>Research Assistant</i>, Robotics and Computer Vision Lab. Mar 2014 – Present</p>
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PUBLICATIONS	<p>International Journal</p> <ol style="list-style-type: none">1. Sunghoon Im, Hyowon Ha, Gyeongmin Choe, Hae-Gon Jeon, Kyungdon Joo and In So Kweon, "Accurate 3D Reconstruction from Small Motion Clip for Rolling Shutter Cameras", <i>IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)</i>, Accept.2. Gyeongmin Choe, Seong-heum Kim, Sunghoon Im, Joon-Young Lee, Srinivasa Narasimhan and In So Kweon, "Accurate 3D Reconstruction from Small Motion Clip for Rolling Shutter Cameras", <i>IEEE Robotics and Automation Letters (RAL)</i>, Accept.3. Seunghak Shin, Sunghoon Im, Inwook Shim, Hae-Gon Jeon, and In So Kweon, "Geometry Guided 3D propagation for Depth from Small Motion", <i>IEEE Signal Processing Letters (SPL)</i>, Dec 2017. <p>International Conference</p> <ol style="list-style-type: none">1. Sunghoon Im, Hae-Gon Jeon and In So Kweon, "Robust Depth Estimation from Auto Bracketed Images", <i>In Proc. of IEEE Conference on Computer Vision and Pattern Recognition (CVPR)</i>, Jun 2018.
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2. Jaeheung Surh, Hae-Gon Jeon, Yunwon Park, **Sunghoon Im**, Hyowon Ha and In So Kweon, "Noise Robust Depth from Focus using a Ring Difference Filter", *In Proc. of IEEE Conference on Computer Vision and Pattern Recognition (CVPR) [Spotlight]*, Jul 2017.
3. **Sunghoon Im**, Hyowon Ha, Francois Rameau, Hae-Gon Jeon, Gyeongmin Choe and In So Kweon, "All-around Depth from Small Motion with A Spherical Panoramic Camera", *In Proc. of European Conference on Computer Vision (ECCV)*, Oct 2016.
4. Hyowon Ha, **Sunghoon Im**, Jaesik Park, Hae-Gon Jeon and In So Kweon, "High-quality Depth from Uncalibrated Small Motion Clip", *In Proc. of IEEE Conference on Computer Vision and Pattern Recognition (CVPR) [Oral]*, Jun 2016.
5. Hae-Gon Jeon, Joon-Young Lee, **Sunghoon Im**, Hyowon Ha and In So Kweon, "Stereo Matching with Color and Monochrome Cameras in Low-light Conditions", *In Proc. of IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Jun 2016.
6. **Sunghoon Im**, Hyowon Ha, Gyeongmin Choe, Hae-Gon Jeon, Kyungdon Joo and In So Kweon, "High Quality Structure from Small Motion for Rolling Shutter Cameras", *In Proc. of IEEE International Conference on Computer Vision (ICCV)*, Dec 2015.
7. **Sunghoon Im**, Gyeongmin Choe, Hae-Gon Jeon and In So Kweon, "Depth from Accidental Motion using Geometry Prior", *In Proc. of IEEE International Conference on Image Processing (ICIP) [Top 10% paper]*, Sep 2015.

Other Publications

1. Jaeheung Surh, Hae-Gon Jeon, Hyowon Ha, **Sunghoon Im** and In So Kweon, "Fast Depth from Defocus with Your Mobile Phone for Synthetic Defocus", *In Proc. of the 28th Workshop on Image Processing and Image Understanding (IPIU)*, Feb 2016.
2. **Sunghoon Im**, Hae-Gon Jeon, Hyowon Ha and In So Kweon, "Depth Estimation from Light Field Cameras", *In Proc. of the 12th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI)*, Oct 2015.
3. Dong-jin Kim, Donggeun Yoo, **Sunghoon Im**, Namil Kim, T. Sirinukulwattana and In So Kweon, "Relative Attributes with Deep Convolutional Neural Network", *In Proc. of the 12th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI)*, Oct 2015.

REVIEWER

- International Journal of Computer Vision (IJCV)
- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2017
- Journal of Institute of Control, Robotics and Systems (ICROS)

AWARDS

- Microsoft Research Asia (MSRA) fellowship, Nomination Award, Oct 2017
- Kim Choong-Ki Award: Research Excellence Award, 2016 Research Performance Evaluation, KAIST EE, Apr 2017
- Best Poster Presentation Award, IPIU 2017 Feb 2017
- Qualcomm Innovation Award 2016, Qualcomm Korea Corp. and KAIST Mar 2016
- Silver prize, 22th HumanTech Paper Award, Samsung Electronics Co., Ltd. Feb 2016
- Best Poster Award, IWRCV 2015 General Chair Nov 2015
- Official Best 10% Paper Selection, ICIP 2015 Organizing Committee Sep 2015
- Design Project Competition(Silver Prize), Sogang University Nov 2013
- Prize for the top first percentile GPA, Sogang University Sep 2011, Feb 2012, Sep 2012

HONORS	• Global Ph.D. Fellowship, National Research Foundation of Korea	Aug 2016 - Present
	(about 20K USD/year + Full scholarship for 2+1 years)	
	• International Computer Vision Summer School (ICVSS 2016), Sicily, Italy	July 2016
	• Summa Cum Laude, Sogang University	Feb 2014
	• Academic Excellence Scholarship, Sogang University	Feb 2012 – Feb 2013
	• Scholarship, Korea Scholarship Foundation	Feb 2012 – Feb 2014
IT SKILLS	• Languages: C, C++, MATLAB, \LaTeX , Python, Lua	