Sunghoon Im (Male)

CONTACT INFORMATION 1989/02/07 (Male) Room 211, Bldg N1, KAIST

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RESEARCH INTERESTS

- 3D Reconstruction
- Stereo matching
- Computational photography

EDUCATION

KAIST, Daejeon, Korea

Ph.D. Student, Electrical Engineering, Mar 2016-Present

• Advisor: Prof. In So Kweon

KAIST, Daejeon, Korea

M.S., Electrical Engineering, Feb 2016

- Thesis: "Structure from Small Motion for Hand-held Cameras"
- Advisor: Prof. In So Kweon
- GPA: 3.81/4.3

Sogang University, Seoul, Korea

B.S., Electronic Engineering, Feb 2014

- Advisor: Prof. Gyeonghwan Kim
- Summa cum laude (GPA: 3.91/4.3)

RESEARCH EXPERIENCES

KAIST, Daejeon, Korea

Research Assistant, Robotics and Computer Vision Laboratory

Mar 2014 - present

- Advisor: Prof. In So Kweon.
- Researched computer vision algorithms, especially for 3D reconstruction and stereo matching.

Sogang University, Seoul, Korea

Research Assistant, Man Machine Interface Laboratory

Jun 2013 – Feb 2014

- Advisor: Prof. Gyeonghwan Kim.
- Researched computer vision algorithms, especially for driver monitoring system.

PUBLICATIONS

International Conference

- 1. **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.
- 2. 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.
- 3. 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.

- 4. **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.
- 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.
- 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.

Honors & Awards

• Global Ph.D. Fellowship, National Research Foundation of Korea (about 20K USD/year + Full scholarship for 2+1 years)

• 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

• Officail Best 10% Paper Selection, ICIP 2015 Organizing Committee Sep 2015

• Summa Cum Laude, Sogang University Feb 2014

Design project competition(Silver Prize), Sogang University
Scholarship, Sogang alumni association
Seb 2012 – Feb 2013

• Scholarship, Korea Scholarship Foundation Feb 2012 – Feb 2014

• Prize for the top first percentile GPA, Sogang University Sep 2011, Feb 2012, Sep 2012

EXPERIENCES Teaching Experience

• EE209, Programming Structure for Electrical Engineering Fall 2014 – Fall 2015

Feb 2008 - Feb 2009

• Volunteer work, Mathmetics at an orphanage

Extra Experience

International Computer Vision Summer School (ICVSS 2016), Sicily, Italy
Presenter, Korea Electronic Show (KES 2015), Ilsan, Korea
Presenter, NVIDIA GTC Korea 2015, Seoul, Korea
Sep 2015

IT SKILLS

• Languages: C, C++, MATLAB, LATEX