

Jaeheung Surh

CONTACT INFORMATION	L8326, KIST, Hwarangno 14-gil 5 Seongbuk-gu, Seoul 02792 Republic of Korea	Tel.: +82-10-9868-8239 E-mail: jaeheungsurh@gmail.com Website: jaeheungs.github.io
RESEARCH INTERESTS	<ul style="list-style-type: none">• Computational Photography• Image Processing• Stereo Matching• SLAM / SfM• Deep Learning	
WORK EXPERIENCE	Center of Human-centered Interaction for Coexistence (CHIC) , Seoul, Korea <i>Researcher</i> , April 2017 – Present <ul style="list-style-type: none">• Development of a high volume data transfer network framework for interactive and cooperative experience in networked VR• Development of computer vision solutions to aid in VR QoE	
EDUCATION	KAIST , Daejeon, Korea M.S., Electrical Engineering, Mar 2015 – Feb, 2017 <ul style="list-style-type: none">• Thesis: “Fast and Robust Depth from Focus using Ring Difference Filter”• Advisor: Prof. In So Kweon• Area of Study: Computer Vision KAIST , Daejeon, Korea B.S., Electrical and Electronic Engineering, Sept 2011 – Feb 2015 <ul style="list-style-type: none">• Thesis: “Multi-Threading for Accelerated Belief Propagation on Bipartite Graphs”• Emphasis on computer science and network programming• Early graduation (1 semester)	
RESEARCH EXPERIENCE	Human-Centered Interaction for Coexistence Project , Seoul, Korea <i>Researcher</i> , CHIC April 2017 – Present <ul style="list-style-type: none">• Researched new computer vision solutions to aid in VR QoE.• Researched novel synchronization protocols to aid in networked multimedia QoE. National Core Research Center (NCRC) , Daejeon, Korea <i>Researcher</i> , Personal Plug and Play DigiCar Center Aug 2015 – Feb 2017 <ul style="list-style-type: none">• Researched new camera systems for future vehicles.	
INTERNATIONAL JOURNALS	1. Jaeheung Surh , Hae-Gon Jeon, Sunghoon Im, and In So Kweon, “Ring Difference Filter for Fast and Noise Robust Depth from Focus,” <i>IEEE Transactions on Image Processing (TIP)</i> , Submitted.	
INTERNATIONAL CONFERENCES	1. Tae-Young Lee, Eunmi Lee, Jaeheung Surh , Joong-Jae Lee, Bum-Jae You, “Balanced Clock Skew Compensation for Immersive Networked Interactions Based on Inter Media Synchronization Level,” <i>In Proc. of the IEEE Computer science and Electronic Engineering Conference (CEEC)</i> [Oral Presenter], September 2018. 2. Jaeheung Surh , Hae-Gon Jeon, Hyowon Ha, Sunghoon Im and In So Kweon, “Noise Robust Depth from Focus using a Ring Difference Filter,” <i>In Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)</i> – 29% acceptance rate) [Spotlight Presentation – 5% of submissions], July 2017.	

3. Bokyoung Lee, Jiwoo Hong, **Jaeheung Surh** and Daniel Saakes, “Ori-mandu: Korean Dumpling into Whatever Shape You Want,” *In Proc. of the ACM SIGCHI Conference on Designing Interactive Systems (DIS – 22% acceptance rate)* [**Pictorial**], June 2017.
4. Bokyoung Lee, Jiwoo Hong, **Jaeheung Surh** and Daniel Saakes, “Ori-mandu: Korean Dumpling into Whatever Shape You Want,” *In Proc. of the ACM CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI – 25% acceptance rate)* [**Video Showcase**], May 2017.

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.

TALKS

- “Fast and Noise Robust Depth from Focus using Ring Difference Filter with Your Mobile Phone,” (**Naver D²**), YouTube video: <https://bit.ly/RDFNaver>, Sept 2017.

IT SKILLS

- Languages: C/C++, MATLAB, C#, L^AT_EX, Python, JAVA
- Experience with Linux and socket programming
- Experience with Tensorflow
- Experience with Unity (C#) and VR development
- Computer hardware enthusiast