# **BYEONGJOO AHN**

#### RESEARCH INTERESTS

Computer Vision, Computer Graphics, and Computational Imaging Generative models and representations for image, video, audio, and 3D content

#### **EDUCATION**

# **Carnegie Mellon University**

Pittsburgh, PA

PhD, Electrical and Computer Engineering

2017-2023

Advisors: Aswin C. Sankaranarayanan and Ioannis Gkioulekas

Thesis: Full-surround 3D Reconstruction using Kaleidoscopes

Thesis Committee: Aswin C. Sankaranarayanan, Ioannis Gkioulekas, Manmohan Chandraker, Shree K. Nayar

#### **Seoul National University**

Seoul, Korea

MS, Electrical Engineering and Computer Science

2012-2014

Advisor: Kyoung Mu Lee

Thesis: Occlusion-Aware Motion Deblurring for Bilayer Scenes

Outstanding Thesis Award

# **Seoul National University**

Seoul, Korea

BS, Electrical and Computer Engineering

2008-2012

Summa Cum Laude

#### PROFESSIONAL EXPERIENCE

AppleSeattle, WAResearch ScientistJan 2024–PresentResearch Intern with Jen-Hao Rick Chang and Karren YangJan 2023–Sep 2023

Snap Inc. (remote) New York, NY
Research Intern with Shree K. Nayar and Jian Wang May 2020–Aug 2020

Korea Institute of Science and Technology

Seoul, Korea

Research Scientist Mar 2014–Aug 2017

HP Labs
Palo Alto, CA
Intern with Irwin Sobel
Jan 2012–Feb 2012

# PROFESSIONAL ACTIVITIES

Area Chair, CVPR (2026)

Area Chair, ICML (2025)

Area Chair, NeurIPS (2024, 2025)

**Program Committee**, ICCP (2023, 2024, 2025)

Reviewer, CVPR (2019–2025), ICCV (2019–2025), ECCV (2020, 2024), BMVC (2019), ICLR (2022), NeurIPS (2022–2023), SIGGRAPH (2022), SIGGRAPH Asia (2023), TIP (2022), TCI (2024)

#### **SELECTED PUBLICATIONS**

#### **Novel-view Acoustic Synthesis From 3D Reconstructed Rooms**

**Byeongjoo Ahn**, Karren Yang, Brian Hamilton, Jonathan Sheaffer, Anurag Ranjan, Miguel Sarabia, Oncel Tuzel, Jen-Hao Rick Chang *Interspeech*, 2024

### **Neural Kaleidoscopic Space Sculpting**

**Byeongjoo Ahn**, Michael De Zeeuw, Ioannis Gkioulekas, Aswin C. Sankaranarayanan *IEEE/CVF Conference on Computer Vision and Pattern Recognition* (CVPR), 2023

### **Kaleidoscopic Structured Light**

**Byeongjoo Ahn**, Ioannis Gkioulekas, Aswin C. Sankaranarayanan *ACM Transactions on Graphics (Proc. SIGGRAPH Asia)*, 2021

# Convolutional Approximations to the General Non-Line-of-Sight Imaging Operator

**Byeongjoo Ahn**, Akshat Dave, Ashok Veeraraghavan, Ioannis Gkioulekas, Aswin C. Sankaranarayanan *IEEE/CVF International Conference on Computer Vision* (ICCV), 2019 (**Oral**)

# Reduced Illumination Patterns for Acquisition of Specular and Diffuse Normal Maps

**Byeongjoo Ahn**, Junghyun Cho, Taekyung Yoo, Ig-Jae Kim *ACM SIGGRAPH Asia Posters*, 2016

## **Dynamic Scene Deblurring**

Tae Hyun Kim, **Byeongjoo Ahn**, Kyoung Mu Lee *IEEE International Conference on Computer Vision* (ICCV), 2013

AWARDS AND HONORS	
Top Reviewer Award, NeurIPS	2022
Doctoral Study Abroad Scholarship, Korea Foundation for Advanced Studies (KFAS)	2017
Fulbright Graduate Study Award (respectfully declined), Fulbright	2017
Outstanding Thesis Award, Department of EECS, Seoul National University	2014
Graduate Scholarship, Kwanjeong Educational Foundation	2012
Presidential Science Scholarship, Korea Student Aid Foundation	2008
Gold Medal, Korean Physics Olympiad	2006
TEACHING	

#### TEACHING

# Teaching Assistant, Carnegie Mellon University

15-463, 15-663, 15-862 Computational Photography 18-290 Signals and Systems

# Fall 2020 Spring 2019, 2020

#### **INVITED TALKS**

## Kaleidoscopic Imaging for Full-surround 3D Reconstruction

Connective AI WorkshopAug 2023KIST, Visual Intelligence GroupApr 2023Meta Reality Labs Research Pittsburgh, TechTalkApr 2022Seoul National University, Topics in 3D Vision WorkshopJan 2022

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