

Education

KAIST

PhD in Graduate School of Culture Technology

Supervisor: Junyong Noh

Thesis: Portrait Video Manipulation and Synthesis using Pre-trained Generative AI

2018 – 2024 (expected)

KAIST

Master in Graduate School of Culture Technology

Supervisor: Junyong Noh

Thesis: Interactive Shadow Removal using a cGAN

2016 – 2018

KAIST

BS in Department of Electrical Engineering

2011 – 2016

Work Experience

Visual Media Lab, KAIST

Research Assistant

> Supervisor: Junyong Noh

> Topic: video, image, and face synthesis and manipulation

Jan. 2017 – Present

Republic of Korea

Adobe Research

Research Intern

> Mentors: Seung Wug Oh, Joon-Young Lee, Cynthia Lu

> Topic: GAN-based image editing

Jun. 2022 – Aug. 2022

Remote

Adobe Research

Research Intern

> Mentors: Seung Wug Oh, Joon-Young Lee, Cynthia Lu

> Topic: GAN-based video portrait video editing

Mar. 2021 – Jun. 2021

Remote

Naver Corp

Research Intern

> Mentor: Suntae Kim, Soonmin Bae

> Topic: light-weight video inpainting model

Dec. 2019 – Jun. 2020

Republic of Korea

Golfzon

Software Intern

> Topic: IR marker tracking for HMD

Dec. 2015 – Feb. 2016

Republic of Korea

Publication

Mesh Agnostic Audio-driven Facial Animation

Kwanggyoon Seo*, Sihun Cha*, HyeonHo Na, Junyong Noh

In submission

LM-EDIT: Emotion Manipulation for Talking-head Videos via Facial Landmarks

Kwanggyoon Seo, Rene Jotham Culaway, ByungUk Lee, Junyong Noh

In submission

Audio2Style: Transferring Latent Motion for Audio-Driven Emotional Talking-Head Generation

Kwanggyoon Seo, Kwan Yun, Sunjin Jung, Junyong Noh

In submission

Speed-Aware Audio-Driven Speech Animation using Adaptive Windows

Sunjin Jung, Yeongho Seol, Kwanggyoon Seo, Hyeonho Na, Seonghyeon Kim, Vanessa Tan, Junyong Noh

In submission

StyleCineGAN: Landscape Cinemagraph Generation using a Pre-trained StyleGAN

Jongwoo Choi, Kwanggyoon Seo, Amirsaman Ashtari, Junyong Noh

In submission

Stylized Sketch Extraction via Generative Prior with Limited Data

Kwan Yun*, Kwanggyoon Seo*, Chang Wook Seo*, Soyeon Yoon, Seongcheol Kim, Soohyun Ji, Amirsaman Ashtari, Junyong Noh

In submission

Facial Performance Retargeting in the Wild

Seonghyun Kim, Kwanggyoon Seo, Seoung Wug Oh, Roger Blanco i Ribera, Junyong Noh

Neural-Enhanced Adaptive Live Streaming

TPAMI - Major Revision

Seunghwa Jeong, Bumki Kim, Seunghoon Cha, Kwanggyoon Seo, Hayoung Chang, Jungjin Lee, Younghui Kim, and Junyong Noh

Generating Texture for 3D Human Avatar from a Single Image using Sampling and Refinement Networks

CGF 2023, EG2023

Sihun Cha, Kwanggyoon Seo, Amirsaman Ashtari, Junyong Noh

StylePortraitVideo: Editing Portrait Videos with Expression Optimization

CGF 2022, PG2022

Kwanggyoon Seo, Seoung Wug Oh, Jingwan Lu, Joon-Young Lee, Seonghyeon Kim, Junyong Noh

Deep Learning-based Unsupervised Human Facial Retargeting

CGF 2021, PG2021

Seonghyeon Kim, Sunjin Jung, Kwanggyoon Seo, Roger Blanco i Ribera, Junyong Noh

Virtual Camera Layout Generation using a Reference Video

CHI 2021

Jung Eun Yoo*, Kwanggyoon Seo*, Sanghun Park, Jaedong Kim, Dawon Lee, Junyong Noh

Overthere: A Simple and Intuitive Object Registration Method for an Absolute Mid-air Pointing Interface

IMWUT 2021

Hyunggoog Seo, Jaedong Kim, Kwanggyoon Seo, Bumki Kim, Junyong Noh

Neural Crossbreed: Neural Based Image Metamorphosis

SIGGRAPH Asia 2020

Sanghun Park, Kwanggyoon Seo, Junyong Noh

* denote equal contribution

Patent

Method of generating cinemagraph based on deep learning	US Patent App. 17/847,472
Method and apparatus for framing three dimensional target object for virtual camera layout	US Patent App. 17/743,448
Method and apparatus for assisting object registration in a smart home system	US Patent App. 17/848,813
Method and device for processing image on basis of artificial neural network	US Patent App. 17/275,772

Tech Transfer

eNgin Visual Wave	Method and apparatus for refining 3D texture	2022
MOTIF IMAGENERY	Method and apparatus for framing 3D target object for generation of virtual camera layout	2020

Mentoring Master/Undergrad Thesis

Stylized Sketch Extraction via Generative Prior with Limited Data	Oct 2022 - Present
Kwan Yun	
Landscape Cinemagraph Generation using a Pre-trained StyleGAN	Jan 2022 - Present
Jongwoo Choi	2022 KAIST URP Grand Prix
Generating Texture for 3D Human Avatar from a Single Image	Jan 2021 - Dec 2022
Sihun Cha	2022 KCGS Best Poster Award
Indoor and Outdoor Light Estimation	Jun 2020 - Dec 2020
Jiwon Lee	2021 KCGS Best Full Paper Award

Academic Service

Reviewer	CVPR 2023-2024, ECCV 2022, TPAMI, CGF 2021-2023, CGI 2019-2022, CASA 2023, WACV 2024
Invited Talk	Soongsil University
TA	GCT501 2017/2022