

# KWANGGYOON SEO

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seokg.github.io

## EDUCATION

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<b>KAIST, Republic of Korea</b> - supervised by Junyong Noh Ph.D. in Graduate School of Culture Technology Research Interests : Deep Learning, Computer Graphics, Computer Vision	<i>Sep 2018 - Present</i>
<b>KAIST, Republic of Korea</b> - supervised by Junyong Noh M.S. in Graduate School of Culture Technology Thesis: Interactive Shadow Removal using a cGAN	<i>Sep 2016 - Aug 2018</i>
<b>KAIST, Republic of Korea</b> B.E. in Electrical Engineering and minor in Culture Technology	<i>Sep 2011 - Aug 2016</i>

## WORK EXPERIENCE

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<b>Visual Media Lab. KAIST</b> <i>Research Assistant</i>	<i>Jan 2017 - Present</i> <i>Republic of Korea</i>
<b>Clova Voice&amp;Avatar, Naver Corp.</b> <i>Research Intern</i> · Researched on a neural network model for video inpainting	<i>Dec 2019 - Jun 2020</i> <i>Republic of Korea</i>
<b>GOLFZON</b> <i>SW Engineer Intern</i> · Developed an infra-red marker tracking system for Head-Mounted-Displays	<i>Dec 2015 - Feb 2016</i> <i>Republic of Korea</i>

## PUBLICATIONS

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<b>Video Inpainting<sup>†</sup></b> preparing	<i>TBD</i>
<b>An Interactive Object Registration Method for an Absolute Mid-air Pointing Interface</b> under review Hyunggoog Seo, Jaedong Kim, Kwanggyoon Seo, Bumki Kim, Kyunghan Lee, Junyong Noh	<i>TBD</i>
<b>Virtual Camera Layout Generation using a Reference Video</b> under review Jungeun Yoo*, <b>Kwanggyoon Seo*</b> , Sanghun Park, Jaedong Kim, Dawon Lee, Junyong Noh	<i>TBD</i>
<b>Neural Crossbreed: Neural Based Image Metamorphosis</b> SIGGRAPH Asia 2020, ACM Transactions on Graphics Sanghun Park, <b>Kwanggyoon Seo</b> , Junyong Noh	<i>Nov 2020</i>
<b>Cinematography Generation using a Reference Video</b> Pacific Graphics 2019 Poster <b>Kwanggyoon Seo</b> , Jungeun Yoo, Sanghun Park, Jaedong Kim, Dawon Lee, Junyong Noh	<i>Oct 2019</i>

<sup>†</sup> denotes temporally title

\* denotes equal contribution

## PROJECTS

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<b>3D Cinemagraph for AR Contents Creation</b> Funding: Institute for Information and Communications Technology Promotion Analyze cinematography properties of video clips using neural networks and replicate the cinematographic camera position and movement in 3D animation.	<i>June 2020 - Dec 2020</i>
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**Development of Camera Work Tracking Technology  
for Animation Production using Artificial Intelligence**

*May 2018 - Dec 2019*

Funding: Korea Creative Content Agency

Analyze cinematography properties of video clips using neural networks and replicate the cinematographic camera position and movement in 3D animation.

**Development of Multi-screen  
Movie Theatre System and Immersive Content**

*Jan 2017 - May 2017*

Funding: Institute for Information and Communications Technology Promotion

Wrapping C++ into C# for screen optimization algorithm used in multi-screen system.

**PATENTS**

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[10-2018-0124256] Artificial intelligence based cinematography learning and camerawork creation for animation

[10-2019-0019620] Method and apparatus of processing image based on artificial neural network

**SKILLS**

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<b>Programing Language</b>	Python, Matlab, C++ , C#
<b>Framework</b>	Pytorch, Tensorflow, OpenCV
<b>Language</b>	Korean, English