

Jun-Hyeong Park

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EDUCATION

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|---|----------------|
| Sungkyunkwan University (SKKU), Seoul, Korea | 2018 – 2024 |
| B.A. Film, TV & Multimedia (Major) | GPA: 4.1 / 4.5 |
| B.S. Applied Artificial Intelligence (Minor) | GPA: 4.4 / 4.5 |
| Busan Foreign Language High School (PFLHS), Busan, Korea | 2015 – 2017 |

COURSEWORK

Courses (Computer Science) : Virtual Augmented Reality Production (**1st place**), Immersive Media International Standard, Data Science Computing , Advanced Machine Learning and Deep Learning, Computer Structure and System

Courses (Art & Contents) : Global Game Capstone Design, AI-empowered Content Creation, Immersive Media Contents Production Practice, Interactive Video, Digital Design, Digital Video and Moving Image, Cinematography

PROFESSIONAL EXPERIENCE

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| Sungkyunkwan University (SKKU), Seoul, Korea | Dec 2022 – Current |
| <ul style="list-style-type: none"> • http://www.skku.edu • M.S., Department of Immersive Media Engineering • Laboratory: Multimedia Computing Systems Lab (MCSL: http://mcsl.skku.edu) | |
| LOCUS Corporation, Seoul, Korea | June 2024 – July 2024 |
| <ul style="list-style-type: none"> • https://locus.com • Digital Experience (DX) team, Research Intern • Researching on virtual production, Motion Capture, Unreal Engine Processing | |
| Electronics and Telecommunications Research Institute (ETRI), Daejeon, Korea | June 2023 – July 2023 |
| <ul style="list-style-type: none"> • https://www.etri.re.kr • Research Intern • Researching on 6DoF immersive media processing technologies, NeRF | |

PROJECT EXPERIENCE

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| Investigation of MPEG 3D Space Video Compression Technology and Comparative Analysis, Sep. 2024 – Dec. 2024 |
| <ul style="list-style-type: none"> • Funded by Electronics and Telecommunications Research Institute (ETRI) |
| Development of International Standards for CT XR Content Copyright Protection Technologies, 2024 – Dec. 2025 |
| <ul style="list-style-type: none"> • Funded by Korea Creative Content Agency (KOCCA) |
| Graduate School of Metaverse Convergence (Sungkyunkwan University), Jul. 2023 – Dec. 2028 |
| <ul style="list-style-type: none"> • Funded by Institute for Information & communications Technology Promotion (IITP) |
| Development of Moving Robot-based Immersive Video Acquisition and Processing System, Jul. 2022 – Dec. 2024 |
| <ul style="list-style-type: none"> • Funded by Institute for Information & communications Technology Promotion (IITP) |
| Foreground and background matching 3D object streaming technology developmen, Apr. 2022 – Dec. 2025 |
| <ul style="list-style-type: none"> • Funded by the Ministry of Science and ICT (about \$4,884,000) |
| Development of Low Latency VRAR Streaming Technology based on 5G Edge Cloud, Apr. 2020 – Dec. 2023 |
| <ul style="list-style-type: none"> • Funded by the Ministry of Science and ICT (about \$2,632,000) |

PUBLICATIONS

International Conferences

1. Jaeyeol Choi, Jong-Beom Jeong, **Jun-Hyeong Park**, Eun-Seok Ryu, “A Deep Learning-based 6DoF Video Synthesizing Method using Instant-NGPs”, IEEE Visual Communications and Image Processing 2023 (VCIP2023), pp. 1-5, Dec. 4, 2023. (SCOPUS Indexed, Oral)
2. Jong-Beom Jeong, **Jun-Hyeong Park**, Soonbin Lee, Eun-Seok Ryu, “Fine-grained Single-layer Tiling for Viewport-Adaptive 360-degree Video Streaming”, IEEE Visual Communications and Image Processing 2023 (VCIP2023), pp. 1-5, Dec. 4, 2023. (SCOPUS Indexed, Oral)

Korean Domestic Journals

1. Isaac Yang, Yeongil Ryu, **JunHyeong Park**, Jaeyeol Choi, Jong-Beom Jeong, Jang Hyun Kim, Eun-Seok Ryu, “Real-life Spatial Volumetric Video Acquisition and Encoding System“, Journal of Broadcast Engineering (JBE), Vol. 29, No. 4, Jul. 2024.

Korean Domestic Conference

1. **Jun-Hyeong Park**, Jong-Beom Jeong, Jaeyeol Choi, Young-Gyu Kim, Eun-Seok Ryu, “Depth Prediction Transformer-Based Multi-View Video Depth Map Generation Technique for 6-DoF Immersive Video Synthesis“, The Korean Institute of Broadcast and Media Engineers (KIBME) Summer Conference, Jun. 27, 2024.
2. **Jun-Hyeong Park**, Eun-Seok Ryu, “Dynamic Radiance Fields Modeling for 6DoF Immersive Video Synthesis“, The Korean Institute of Broadcast and Media Engineers (KIBME) Fall Conference, Nov. 20, 2023.
3. **Jun-Hyeong Park**, Jong-Beom Jeong, Jae-Yeol Choi, Eun-Seok Ryu, “Comparison of Neural Radiance Fields-based models for 3D Scene Reconstruction“, The Korean Institute of Broadcast and Media Engineers (KIBME) Summer Conference, Jun. 30, 2023.
4. Yeong-Gyu Kim, Jong-Beom Jeong, **Jun-Hyeong Park**, Jaeyeol Choi, Eun-Seok Ryu, “Performance Comparison of NeRF Combined with Video Codecs“, The Korean Institute of Broadcast and Media Engineers (KIBME) Summer Conference, Jun. 27, 2024.
5. Jaeyeol Choi, Yeong-Gyu Kim, Jong-Beom Jeong, **Jun-Hyeong Park**, Eun-Seok Ryu, “Compressing 4D Gaussians based on Quantization and Video Codec“, The Korean Institute of Broadcast and Media Engineers (KIBME) Summer Conference, Jun. 27, 2024.
6. Jaeyeol Choi, Jong-Beom Jeong, **Jun-Hyeong Park**, Hong-Chang Shin, Jun-Young Jeong, Gwangsoon Lee, Eun-Seok Ryu, “Analyzing the Effectiveness of Adapting Transfer Learning to Neural Radiance Fields for Video Representation“, The Korean Institute of Broadcast and Media Engineers (KIBME) Summer Conference, Jun. 30, 2023.

Video Standard Contribution

1. **Jun-Hyeong Park**, Jaeyeol Choi, Jong-Beom Jeong, Jinho Lee, Gun Bang, Eun-Seok Ryu, “[INVR] Guideline of ReRF Extended Implementation”, document MPEG2024/m66419, 144th MPEG meeting of ISO/IEC JTC1/SC29/WG4, Jan. 2024.
2. **Jun-Hyeong Park**, Jaeyeol Choi, Jong-Beom Jeong, Eun-Seok Ryu, “[INVR] Report on EE2.1: Inter Mode Dynamic NeRF Investigation”, document MPEG2023/m64722, 144th MPEG meeting of ISO/IEC JTC1/SC29/WG4, Oct. 2023.
3. **Jun-Hyeong Park**, Eun-Seok Ryu, “Efficient Voxel Grid-based Model Optimization for 6DoF Video Synthesis”, Multi-dimensional Images Technology Standardization Forum, No. XDFK_01.0043/R0, Nov. 2023.

4. Jaeyeol Choi, **Jun-Hyeong Park**, Jong-Beom Jeong, Eun-Seok Ryu, “[INVR]EE2.1-Related: 3D Gaussian Splatting for Visual Representation”, document MPEG2024/m66420, 144th MPEG meeting of ISO/IEC JTC1/SC29/WG4, Jan. 2024.
5. Jaeyeol Choi, **Jun-Hyeong Park**, Jong-Beom Jeong, Yeong Gyu Kim, Eun-Seok Ryu, “[INVR]EE2.2: Compression of 4D Gaussian Splatting based on Video Codec and Gaussian Pruning”, MPEG2024/m68229, 147th MPEG meeting of ISO/IEC JTC1/SC29/WG4, July. 2024.
6. Jaeyeol Choi, Jong-Beom Jeong, **Jun-Hyeong Park**, Yeongil Ryu, Issac Yang, Jinho Lee, Gun Bang, Eun-Seok Ryu, “[INVR] Color Corrected SKKU_VRroom1D”, document MPEG2024/m66418, 144th MPEG meeting of ISO/IEC JTC1/SC29/WG4, Jan. 2024.
7. Jaeyeol Choi, Yeongil Ryu, Yihyun Choi, Jong-Beom Jeong, **Jun-Hyeong Park**, Issac Yang, Eun-Seok Ryu, “[INVR]EE2.1-Related: Report with New Natural INVR Video Contents: SKKU_VRroom”, document MPEG2023/m64721, 144th MPEG meeting of ISO/IEC JTC1/SC29/WG4, Oct. 2023.
8. Jong-Beom Jeong, **Jun-Hyeong Park**, Jaeyeol Choi, Eun-Seok Ryu, “[MIV] Crosscheck of m64807”, document MPEG2023/m65632, 144th MPEG meeting of ISO/IEC JTC1/SC29/WG4, Oct. 2023.
9. Jong-Beom Jeong, **Jun-Hyeong Park**, Eun-Seok Ryu, “[MIV] Crosscheck of m62701”, document MPEG2023/m63396, 142nd MPEG meeting of ISO/IEC JTC1/SC29/WG4, Apr. 2023.

Patents

1. Eun-Seok Ryu, Jong-Beom Jeong, **Jun-Hyeong Park**, “Method and Apparatus for Video Encoding and Decoding, And Method for Transmitting a Bitstream Generated by The Video Encoding Method”, Research & Business Foundation of Sungkyunkwan University, No. 10-2023-0142819, Oct. 24, 2023[Application].

Program Copyright

1. **Jun-Hyeong Park**, Jaeyeol Choi, Jong-Beom Jeong, Eun-Seok Ryu, “Neural Network-based Multi-view Video Processor”, Nov. 22, 2023.
2. Jong-Beom Jeong, **Jun-Hyeong Park**, Jaeyeol Choi, Eun-Seok Ryu, “360-degree Video User Perspective Multi-tile Detector”, Nov. 22, 2023.
3. Jaeyeol Choi, **Jun-Hyeong Park**, Jong-Beom Jeong, Eun-Seok Ryu, “Immersive Graphic Primitives”, Nov. 22, 2023.

HONORS AND AWARDS

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| Grand Award <i>Jun-Hyeong Park, Jong-Beom Jeong, Jaeyeol Choi, Young-Gyu Kim, Eun-Seok Ryu</i> | Jun. 2024 |
| ”Depth Prediction Tranformer-Based Multi-View Video Depth Map Generation Technique for 6-DoF Immersive Video Synthesis”, The Korean Institute of Broadcast and Media Engineers (KIBME) Summer Conference | |
| SKKU Magna Cum Laude <i>Jun-Hyeong Park</i> | Feb. 2024 |
| Sungkyunkwan University Honors Graduation Award | |
| Grand Award <i>Jun-Hyeong Park, Eun-Seok Ryu</i> | Nov. 2023 |
| ”Dynamic Radiance Fields Modeling for 6DoF Immersive Video Synthesis”, The Korean Institute of Broadcast and Media Engineers (KIBME) Fall Conference. | |
| Encouragement Paper Award <i>Jaeyeol Choi, Jong-Beom Jeong, Junhyeong Park, Eun-Seok Ryu</i> | Jun. 2023 |
| ”Analyzing the Effectiveness of Adapting Transfer Learning to Neural Radiance Fields for Video Representation”, The Korean Institute of Broadcast and Media Engineers (KIMBE) Summer Conference. | |

SKILLS

Programming | *Python, C, C#, Git, VS Code, Pytorch, Linux, etc.*

- Proficient in Python and able to use many libraries
- Developed and released a mobile game in Unity.
- Proficient in Linux environment and server management
- Experience in front-end web development through HTML, CSS, and JS
- In charge of a project to experience the entire process of processing 360 video
- Experience in improving and researching the architecture of various NeRF-based models

Creativity | *Unreal Engine, Unity, 3ds Max, Blender, AfterEffect, Premiere pro, etc.*

- Proficient in 3D modeling using 3DS Max and Blender
- Proficient in VFX effects and video editing and can use various video editing tools
- Familiar with multiple Adobe creative tools and capable of design, illustration, voice editing, etc.
- Interest in content creation using generative AI

TEACHING EXPERIENCE

Teaching Assistant (T.A.) | *Linux System*

2024. 03 – 2024. 06

- Multimedia Computing Systems Lab, Department of Computer Science Education
- Sungkyunkwan University, Seoul, Korea

Teaching Assistant (T.A.) | *Linux System*

2023. 03 – 2023. 06

- Multimedia Computing Systems Lab, Department of Computer Science Education
- Sungkyunkwan University, Seoul, Korea

REFERENCE

Eun-Seok Ryu (*IEEE Senior Member*):

Associate Professor, Department of Immersive Media Engineering, Sungkyunkwan University (SKKU)

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E-mail : esryu [at] skku.edu

Jong-Beom Jeong:

Ph.D. Candidate, Department of Computer Science Education, Sungkyunkwan University (SKKU)

Phone : +82-10-9118-8371 (cell)

E-mail : uof4949 [at] skku.edu