

Kyoungkook Kang

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EDUCATION

Mar. 2020 ~ Feb. 2026	Pohang University of Science and Technology Department of Computer Science and Engineering	Pohang, Korea
	Thesis: Layered Image Synthesis: Decomposition and Back-to-Front Generation <i>Advisor: Sunghyun Cho</i> <i>Ph.D. in Computer Science and Engineering</i>	
Mar. 2017 ~ Feb. 2019	Daegu Gyeongbuk Institute of Science and Technology Department of Electrical Engineering & Computer Science	Daegu, Korea
	Thesis: Interactive and Automatic Navigation for 360° Video Playback <i>Advisor: Sunghyun Cho</i> <i>M.S. in Information and Communication Engineering</i>	
Mar. 2013 ~ Feb. 2017	Hanyang University Department of Electronic Engineering	Seoul, Korea
	<i>B.S. in Electronic Engineering</i>	

RESEARCH INTERESTS

- Generative Models & Diffusion Models
- Layered Image Generation
- Image Editing & Visual Content Manipulation
- Image Decomposition & Matting
- Tone Adjustment

PUBLICATIONS (INTERNATIONAL)

1. **Kyoungkook Kang**, Sunghyun Cho, "Interactive and automatic navigation for 360° video playback", *ACM TRANSACTIONS ON GRAPHICS (SIGGRAPH 2019)*
2. **Kyoungkook Kang**, Seongtae Kim, Sunghyun Cho, "GAN Inversion for Out-of-Range Images with Geometric Transformations", *The IEEE/CVF International Conference on Computer Vision (ICCV 2021)*
3. **Kyoungkook Kang**, Gyujin Sim, Geonung Kim, Donguk Kim, Seungho Nam, Sunghyun Cho,

"LayeringDiff: Layered Image Synthesis via Generation, then Disassembly with Generative Knowledge", *ARXIV:2501.01197V1*, (2025)

4. **Kyoungkook Kang**, Gyujin Sim, Sunghyun Cho, "BFS: Back-to-Front Layered Image Synthesis via Knowledge Transfer", *SIGGRAPH 2026*, (2026)
5. Hyeongmin Lee, **Kyoungkook Kang (Equal Contribution)**, Jungseul Ok, Sunghyun Cho, "CLIPtone: Unsupervised Learning for Text-based Image Tone Adjustment", *The IEEE/CVF Computer Vision and Pattern Recognition Conference (CVPR 2024)*
6. Geonung Kim, **Kyoungkook Kang**, Seongtae Kim, Hwayoon Lee, Sehoon Kim, Jonghyun Kim, Seung-Hwan Baek, Sunghyun Cho, "BigColor: Colorization using a Generative Color Prior for Natural Images", *The European Conference on Computer Vision (ECCV 2022)*
7. Seongtae Kim, **Kyoungkook Kang**, Geonung Kim, Seung-Hwan Baek, Sunghyun Cho, "DynaGAN: Dynamic Few-shot Adaptation of GANs to Multiple Domains", *SIGGRAPH ASIA 2022*
8. Hwayoon Lee, **Kyoungkook Kang**, Hyeongmin Lee, Seung-Hwan Baek, Sunghyun Cho, "UGPNet: Universal Generative Prior for Image Restoration", *The IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2024)*

PUBLICATIONS (KOREA DOMESTIC)

1. **Kyoungkook Kang**, Sunghyun Cho, "Interactive and Automatic Panning for 360° Video Playback", *IPIU 2018*, (2018)
2. **Kyoungkook Kang**, Sunghyun Cho, "360° 비디오 재생을 위한 자동 패닝", *KSC 2018 (우수 논문상)*, (2018)
3. **Kyoungkook Kang**, Sunghyun Cho, "Interactive and Automatic Navigation for 360° Video Playback", *KCGS 2019, Extended Abstract (석사논문상 최우수상)*, (2019)
4. **Kyoungkook Kang**, Seongtae Kim, Sunghyun Cho, "학습 가능한 옵티마이저를 이용한 고속 StyleGAN 인버전", *IPIU 2021 (우수논문상 은상)*, (2021)
5. 김성태, 강경국, 조성현, "고해상도 GAN 영상 편집을 위한 중간 층 미리 보기", *IPIU 2021*, (2021)
6. **Kyoungkook Kang**, Seongtae Kim, Sunghyun Cho, "기하적 변형이 포함된 이미지의 GAN Inversion", *KCGS 2021, Extended Abstract*, (2021)
7. 김건웅, 강경국, 김성태, 이화윤, 김세훈, 김종현, 조성현, "BigGAN 인버전을 활용한 흑백 영상 색상화", *IPIU 2022*, (2022)
8. 김성태, 강경국, 김건웅, 백승환, 조성현, "다중 도메인에서의 적대적 생성 신경망의 동적 퓨샷 적응", *KCGS 2022, Extended Abstract*, (2022)
9. 이화윤, 강경국, 이형민, 백승환, 조성현, "회귀 기반 신경망과 적대적 생성망을 함께 활용한 영상 복원", *IPIU 2023*, (2023)
10. 이형민, 강경국, 옥정슬, 조성현, "비지도학습을 통한 텍스트 기반의 영상 톤 조정", *IPIU 2024*, (2024)

SELECTED AWARDS AND HONORS

- 석사논문상 최우수상, *KCGS 2019, Korea* (Jul. 2019)
- Naver Ph.D Fellowship, *Naver, Korea* (Dec. 2021)
- Samsung Ph.D. Fellowship Award, *Samsung Advanced Institute of Technology (SAIT), Korea* (Mar. 2023)

PATENTS

1. Sung Hyun, Cho, Kang Kyoungkook, "Apparatus and method for playing 360-degree video", *KR-Registration No. 10-2179243-0000*

2. 김건웅, 강경국, 김성태, 이화윤, 김종현, 김세훈, 백승환, 조성현, "흑백 이미지 내에 포함된 픽셀들 각각의 색상을 생성하기 위한 전자 장치, 방법, 및 컴퓨터 판독 가능 저장 매체", KR-Application No. 10-2022-0114554

PROFESSIONAL ACTIVITIES

- Reviewer
 - IEEE Computer Vision and Pattern Recognition (CVPR)
 - European Conference on Computer Vision (ECCV)
 - IEEE International Conference on Computer Vision (ICCV)
 - International Journal of Computer Vision (IJCV)
 - IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
 - British Machine Vision Conference (BMVC)
 - International Conference on Learning Representations (ICLR)

TECHNICAL SKILLS

- Generative Model Development
 - Customization of generative models
- Software Engineering
 - Proficient in PyTorch for model development, experimentation, and prototyping
 - Experience setting up multi-GPU training environments