Chanyoung Kim

Contact Information

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Research Interests

Visual Foundation Models

- Aligning vision-language models for generalizable visual understanding (CVPR 2025)
- Unsupervised spectral learning of image representations (CVPR 2024, 2025)
- Task-specific adaptation of foundation model features (CVPR 2024, 2025)

Generative Models

- Controllable text-to-image synthesis (CVPR 2025; MICCAI 2024, 2025)
- Audio-visual representation-guided image generation (CVPR 2022; ECCV 2022)

Education

M.S. & Ph.D. in Artificial Intelligence, Yonsei University, Seoul, Korea 2023–2028
Advisor: Prof. Seong Jae Hwang

- Collaborating with Prof. Ming-Hsuan Yang (UC Merced & Google DeepMind)
- Collaborating with Dr. Roberto Alcover-Couso (Amazon)

B.S. in Intelligent Mechatronics Eng., Sejong University, Seoul, Korea 2017–2023

Research Experience

Medical Imaging & Computer Vision Lab, Yonsei University
Graduate Research Assistant 2023–Present

Computer Vision Lab, Korea University
Undergraduate Research Intern 2021–2022
Collaborated with Dr. Wonmin Byeon (NVIDIA Research)

Academic Service

Conference (Workshop) Organizing Committee

MICCAI Student Board - *Local Student Liaison Officer*

- Organizing workshops, webinars, and conference events for MICCAI 2025
- Check out our events [HERE]

Conference Reviewer

CVPR 2024, 2025
NeurIPS 2025
ICCV 2025
ECCV 2024

Conference Publications

Chanyoung Kim, Dayun Ju, Woojung Han, Ming-Hsuan Yang, Seong Jae Hwang, "Distilling Spectral Graph for Object-Context Aware Open-Vocabulary Semantic Segmentation", ***CVPR*** 2025 [PDF]

Chanyoung Kim*, Dayun Ju*, Jinyeong Kim, Woojung Han, Roberto Alcover-Couso, Seong Jae Hwang, "Pathology-Aware Adaptive Watermarking for Text-Driven Medical Image Synthesis", ***MICCAI*** 2025 (Early Acceptance, AR $\leq$ 9%) [PDF]

Chanyoung Kim*, Woojung Han*, Dayun Ju, Seong Jae Hwang, "EAGLE: Eigen Aggregation Learning for Object-Centric Unsupervised Semantic Segmentation", ***CVPR*** 2024 (Highlight, AR $\leq$ 2.8%) [PDF] (Short version at *CVPRW* 2024 - *Causal and Object-Centric Representations for Robotics*)

Woojung Han*, **Chanyoung Kim***, Dayun Ju, Yumin Shim, Seong Jae Hwang, "Advancing Text-Driven Chest X-Ray Generation with Policy-Based Reinforcement Learning", ***MICCAI*** 2024 (Spotlight, AR $\leq$ 3.4%) [PDF]

Woojung Han, Yeonkyeong Lee, **Chanyoung Kim**, Seong Jae Hwang, "Spatial Transport Optimization by Repositioning Attention Map for Training-Free Text-to-Image Synthesis", ***CVPR*** 2025 [PDF] (Short version at *CVPRW* 2025 - *Generative Models for Computer Vision*)

Seung Hyun Lee, Gyeongrok Oh, Wonmin Byeon, **Chanyoung Kim**, Wonjeong Ryoo, Sang Ho Yoon, Hyunjun Cho, Jihyun Bae, Jinkyu Kim, Sangpil Kim, "Sound-Guided Semantic Video Generation", ***ECCV*** 2022 [PDF]

Seung Hyun Lee, Wonseok Roh, Wonmin Byeon, Sang Ho Yoon, **Chanyoung Kim**, Jinkyu Kim, Sangpil Kim, "Sound-Guided Semantic Image Manipulation", ***CVPR*** *2022* [PDF]

Wonseok Roh, Gyusam Chang, Seokha Moon, Giljoo Nam, **Chanyoung Kim**, Younghyun Kim, Jinkyu Kim, Sangpil Kim, "ORA3D: Overlap Region Aware Multi-view 3D Object Detection", ***BMVC*** 2022 [PDF]

Preprints

Seung Hyun Lee*, **Chanyoung Kim***, Wonmin Byeon, Sang Ho Yoon, Jinkyu Kim, Sangpil Kim, "LISA: Localized Image Stylization with Audio via Implicit Neural Representation", *arXiv Preprint* [PDF]

Donghyun Kim, Hyunah Ko, **Chanyoung Kim**, Seong Jae Hwang, "Fourier Decomposition for Explicit Representation of 3D Point Cloud Attributes", *arXiv Preprint* [PDF]

Workshop Publications

Seung Hyun Lee, Nahyuk Lee, **Chanyoung Kim**, Wonjeong Ryoo, Jinkyu Kim, Sang Ho Yoon, S. Kim, "Audio-Guided Image Manipulation for Artistic Paintings", ***NeurIPSW*** *2022 - ML for Creativity and Design*

Honors and Awards

Excellent Academic Paper Award (Fall 2024)	Yonsei University
LAB Start-up 2022	Korea University
Korea University π-ville Demo Day 2021	Korea University
Sejong Scholarship for Outstanding GPA	Sejong University
Seoul PM Hackathon	Seoul Metropolitan City
XXIII Pyeongchang Olympic Winter Games	Republic of Korea Government

Teaching Experiences

Yonsei University

- TA: "Deep Learning Introduction and Applications" (Spring 2024, 2025)
- TA: "Computer Vision" (Fall 2023)

Samsung Electronics

- Lecturer: "Introductions to Data Science" (Aug. 2023)

Skills

Programming

- Python, Deep Learning Frameworks (Pytorch, Pytorch Lightning, TensorFlow), Python Libraries (Diffusers, Hugging Face, MMCV, Scikit-Learn, etc), Shell Script, Git, LaTeX

Languages

- Fluent in English (2 years at McKinley School, Pasadena, CA (2006 - 2008))
- Native speaker in Korean

References

Prof. Seong Jae Hwang (PhD Advisor), Associate Professor, Yonsei University

Prof. Ming-Hsuan Yang, Professor & Research Scientist, UC Merced & Google DeepMind

Dr. Wonmin Byeon, Research Scientist, NVIDIA Research

Dr. Roberto Alcover-Couso, Applied Scientist, Amazon