

JOONSIK NAM

Integrated M.S./Ph.D. Student

Department of Electronic Engineering, Sogang University
Vision & Display Systems Laboratory (VDSLab)

js.nam@sogang.ac.kr | www.jjn.github.io/Portfolio-joonsik/

RESEARCH SUMMARY

My research focuses on scalable 3D/4D spatial intelligence for dynamic real-world environments. I investigate Gaussian Splatting and dynamic scene representations that preserve spatial and temporal consistency over long sequences, together with efficient multimodal and vision-language learning for visual AI systems.

RESEARCH INTERESTS

3D/4D Vision · Dynamic Scene Representation · Gaussian Splatting · Multimodal AI · Vision-Language Models · Efficient Visual AI

PUBLICATIONS

*Equal contribution †Corresponding author

International Conference

TRiGS: Temporal Rigid-Body Motion for Scalable 4D Gaussian Splatting

Suwoong Yeom*, Joonsik Nam*, Seunggyu Choi*, Lucas Yunkyu Lee, Sangmin Kim, Jaesik Park, Joonsoo Kim, Kugjin Yun, Kyeongbo Kong†, Suk-Ju Kang†
European Conference on Computer Vision (ECCV), 2026.

OriCache: Orientation-Guided Feature Caching for DiT Acceleration

Joonsik Nam, Hyunwoo Yu, Suk-Ju Kang†
International Conference on Machine Learning (ICML) 2026, AdaptFM Workshop.

Reducing Attention Distribution Error with Unified Tail Aggregation for Sparse Attention

Hyunwoo Yu*, Jongbeom Lee*, Jaemin Choi*, Jincheol Yang*, Yubin Cho*, Joonsik Nam, Seunghun Moon, Jung-Woo Chang, Bongjoon Hyun, Kyomin Sohn, Kyeongbo Kong†, Suk-Ju Kang†
International Conference on Machine Learning (ICML) 2026, AdaptFM Workshop.

International Journal (Under Review)

HOIGS: Human-Object Interaction Gaussian Splatting

Taewoo Kim*, Suwoong Yeom*, Jaehyun Pyun*, Geonho Cha, Dongyoon Wee, Joonsik Nam, Yun-Seong Jeong, Kyeongbo Kong†, Suk-Ju Kang†
IEEE Transactions on Multimedia (TMM), under review.

SPIDFormer: Dual Low-Rank Attention For Spiking Neural Network

Hyunwoo Yu*, Joonsik Nam*, Jung-Woo Chang, Suk-Ju Kang†
IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI), under review.

Domestic Conference

Orientation-Consistency-Based Feature Reuse for DiT Acceleration (in Korean)

Joonsik Nam, Hyunwoo Yu, Suk-Ju Kang†
Summer Annual Conference of the Institute of Electronics and Information Engineers (IEIE), 2026.

RESEARCH PROJECTS

NAVER Collaborative Research

Jan. 2026 – Present

Collaboration: NAVER Cloud | Role: Research Participant

Low-Power Neuromorphic Edge SoC Development

Mar. 2025 – Present

Funding Agency: Electronics and Telecommunications Research Institute (ETRI) | Role: Research Participant

ACADEMIC SERVICE

Program Committee, AAAI Conference on Artificial Intelligence (AAAI)	2027
Reviewer, AAAI Conference on Artificial Intelligence (AAAI)	2026

EDUCATION

Sogang University, Seoul, Republic of Korea	Sep. 2025 – Present
Integrated M.S./Ph.D. Program in Electronic Engineering	
Sogang University, Seoul, Republic of Korea	Mar. 2019 – Aug. 2025
B.S. in Electronic Engineering	