SUNGJUNE KIM

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RESEARCH INTERESTS

Computer Vision, Autonomous Driving, Robot Navigation

EDUCATION

Korea University, Seoul, South Korea Mar. 2022 - Current
M.S./Ph.D. in Artificial Intelligence (Advisor: Professor Sangpil Kim)

Dongguk University, Seoul, South Korea Feb. 2019
(Major) Bachelor of Business Administration in Management
(2nd Major) Bachelor of Science in Software Convergence

Gwacheon Foreign Language Highschool Feb. 2014
English Major / Japanese Minor

EXPERIENCE

Visiting Scholar (Expected) May. 2025 - Apr. 2026
University of Michigan, Ann Arbor (Advisor: Professor Honglak Lee) *Ann Arbor, MI, USA*

- Vision-Language understanding for embodied agents

Visiting Graduate Researcher Mar. - Aug. 2023, Mar. 2024 - Jan. 2025
Computer Vision Lab, Samsung Advanced Institute of Technology (SAIT) *Suwon, South Korea*

- Vision-Language understanding for robot navigation
- Multi-view camera-based 3D occupancy prediction
- Multimodal fusion of RGB camera and LiDAR sensor for 3D object detection

Military Officer Mar. 2019 - Jun. 2021
ICT Battalion, 22nd Infantry Division, Republic of Korea Army *Gangwon, South Korea*

- Wired communication network management (UTP, Optical cables) - 1st Lieutenent
- Tactical Multiband Radio (TMR) operations - 2nd Lieutenent

PUBLICATIONS

Sungjune Kim[†], Gyeongrok Oh[†], Heeju Ko, Daehyun Ji, Dongwook Lee, Byung-Jun Lee, Sujin Jang*, Sangpil Kim* "Test-Time Adaptation for Online Vision-Language Navigation with Feedback-based Reinforcement Learning", ICML 2025. († Equal Contributions)

Gyeongrok Oh[†], **Sungjune Kim**[†], Heeju Ko, Hyung-gun Chi, Jinkyu Kim, Dongwook Lee, Daehyun Ji, Sungjoon Choi, Sujin Jang*, Sangpil Kim* "3D Occupancy Prediction with Low-Resolution Queries via Prototype-aware View Transformation", CVPR 2025. († Equal Contributions) (link)

Gyeongrok Oh, **Sungjune Kim**, Heon Gu, Sangho Yoon, Jinkyu Kim, Sangpil Kim* "FPANet: Frequency-based Video Demoireing using Frame-level Post Alignment", Neural Networks, 2025 (link)

Sungjune Kim, Hadam Baek, Seunggwan Lee, Hyung-gun Chi, Hyerin Lim, Jinkyu Kim*, Sangpil Kim* "Enhanced Motion Forecasting with Visual Relation Reasoning", ECCV 2024 (link)

Sungjune Kim, Hyung-gun Chi, Hyerin Lim, Karthik Ramani, Jinkyu Kim*, Sangpil Kim* "Higher-order Relational Reasoning for Pedestrian Trajectory Prediction", CVPR 2024 (link)

Sungjune Kim, Seongjun Yun, Gyusam Chang, Wonseok Roh, Jung-Tae Lee, Dae-Neung Sohn, Hogun Park*, Sangpil Kim*, "Self-supervised Multimodal Graph Convolutional Network for Collaborative Filtering", Information Sciences (JCR IF Top 10%) 2023 (link)

PATENTS

- Method and mobility device using the method for path prediction through interaction analysis between objects using artificial intelligence (Pending - Application No. 1020240038555)

- Self-supervised learning for graph-based item popularity prediction (Pending - Application No. 1020230018908)

TALKS & POSTERS

- [**Seminar**] Naver Invited Seminar - Virtual (Dec. 2023)
  Cold-start Item Popularity Prediction in E-Commerce and Its Future

- [**Poster**] Naver Search Colloquium (Commerce AI Session) - Virtual (May 2022)
  Multimodal Graph Neural Network for Cold-start Item Popularity Prediction in E-Commerce

AWARDS

- [**Best Paper Award**] 2023-Fall Best Paper Award, School of Informatics, Korea University

SKILLS

- **Programming Languages**: Python, Java, C++

- **Frameworks**: PyTorch, TensorFlow

- **Operating Systems**: Linux, Windows

- **Languages**: Korean(Native), English(Fluent)