Dongki Jung

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EMPLOYMENT	**NAVER LABS**	

- Spatial AI Team — Mar 2022 – Present
- Robotics Vision Team — Apr 2021 – Feb 2022
- Research Intern at Computer Vision Team — Sep 2020 – Mar 2021
  - Adviser: PhD. Donghwan Lee

EDUCATION

Korea Advanced Institute of Technology (KAIST)

- M.S. in Electrical Engineering — Feb 2019 – Feb 2021
  - Adviser: Prof. Changick Kim
  - Cumulative GPA of 3.8 / 4.3

Korea University

- B.S. in Electrical Engineering — Mar 2013 – Feb 2019
  - Auxiliary Police (mandatory military service) — May 2014 – Feb 2016
  - Cumulative GPA of 4.03 / 4.5

RESEARCH INTERESTS

3D Reconstruction, Neural Rendering, and SfM

PUBLICATIONS

INTERNATIONAL CONFERENCES

[1] Obin Kwon, **Dongki Jung**, Youngji Kim, Soohyun Ryu, Suyong Yeon, Songhwai Oh, Donghwan Lee, "WayIL: Image-based Indoor Localization with Wayfinding Maps," Accepted to *The IEEE International Conference on Robotics and Automation (ICRA)*, 2024.

[2] Jaehoon Choi, **Dongki Jung**, Taejae Lee, Sangwook Kim, Youngdong Jung, Dinesh Manocha, Donghwan Lee, "TMO: Textured Mesh Acquisition of Objects with a Mobile Device by using Differentiable Rendering," Accepted to *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)*, 2023.

[3] Jaehoon Choi*, **Dongki Jung***, Yonghan Lee, Deokhwa Kim, Dinesh Manocha, Donghwan Lee, "SelfTune: Metrically Scaled Monocular Depth Estimation through Self-Supervised Learning," Accepted to *The IEEE International Conference on Robotics and Automation (ICRA)*, 2022. (* equal contribution)

[4] **Dongki Jung***, Jaehoon Choi*, Yonghan Lee, Deokhwa Kim, Changick Kim, Dinesh Manocha, Donghwan Lee, "DnD: Dense Depth Estimation in Crowded Indoor Dynamic Scenes," Accepted to *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021. (* equal contribution)

[5] Taekyung Kim, Jaehoon Choi, Seokeon Choi, **Dongki Jung**, Changick Kim, "A Few Depth Points are All You Need for Multi-view Stereo: A Novel Semi-supervised Learning Method for Multi-view Stereo," Accepted to *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021.

[6] Jaehoon Choi, **Dongki Jung**, Yonghan Lee, Deokhwa Kim, Dinesh Manocha, and Donghwan Lee, "SelfDeco: Self-Supervised Monocular Depth Completion in Challenging Indoor Environments," Accepted to *The IEEE International Conference on Robotics and Automation (ICRA)*, 2021.

[7] Jaehoon Choi*, **Dongki Jung***, Donghwan Lee, Changick Kim, "SAFENet: Self-Supervised Monocular Depth Estimation with Semantic-Aware Feature Extraction," Accepted to *The 34th Annual Conference on Neural Information Processing Systems Workshop (NeurIPSW)*, Vancouver, Canada, 2020. (* equal contribution)

[8] **Dongki Jung**, Seunghan Yang, Jaehoon Choi, and Changick Kim, "Arbitrary Style Transfer Using Graph Instance Normalization," Accepted to *The 27th IEEE International Conference on Image Processing (ICIP)*, Abu Dhabi, UAE, Oct. 22-28, 2020.

[9] Seunghan Yang, Youngeun Kim, **Dongki Jung**, Changick Kim, "Partial Domain Adaptation Using Graph Convolutional Networks," *arXiv* 2020.

CHALLENGES

INTERNATIONAL CHALLENGES

[1] **3rd place** in the Track 3: City-Scale Multi-Camera Vehicle Tracking at **AI City Challenge** held in *IEEE Conference on Computer Vision and Pattern Recognition* Workshop 2020

PROJECT EXPERIENCE	■ ATM vandalism action recognition	Mar 2018 – Jun 2018

PROJECT EXPERIENCE

■ ATM vandalism action recognition — Mar 2018 – Jun 2018
- ● Research internship at *Korea University*. Funded by *Nautilus HYOSUNG*
- ● Aimed at making the ATM vandalism dataset with own annotation and object detection with YOLOv2

■ 3D Object Recognition Algorithm for Indoor and Outdoor Scenes — May 2019 – Sep 2020
- ● Research project at *KAIST*. Funded by *LG Electronics Co., Ltd*
- ● Aimed at Developing the 2D object detection and depth estimation for cross-modality of RGB and FIR images.

■ Dense mapping (SfM/Neural SDF) for indoor scene reconstruction — Dec 2022 – Present
- ● Research project at *NAVER LABS*
- ● Developed a fully automated pipeline for textured mesh using omnidirectional camera
- ● served for a real estate property tours

PATENTS

■ Dongki Jung, Donghwan Lee, Yonghan Lee, Deokhwa Kim, "Method and System for Training Monocular Depth Estimation Models," Korean Patent No. 10-2023-0064188

■ Eight pending patents in South Korea.

AWARDS & SCHOLARSHIPS

■ Academic Achievement Award, Korea University
- ● Semester High Honors in the first Semester of 2016
- ● Semester High Honors in the second Semester of 2016
- ● Semester High Honors in the first Semester of 2017
- ● Semester High Honors in the second Semester of 2017
- ● Great Honor in Winter 2018 Graduation

■ KU Alumni Scholarships
- ● the second Semester of 2016

■ YooJung Scholarship Foundation
- ● the first and second Semesters of 2017
- ● the first and second Semesters of 2018

ADDITIONAL ACTIVITIES

■ Volunteer Experience — Sep 2013 – Dec 2013
- ● participated in the Public Relations group of Seoul Volunteer Center

LANGUAGES

■ Korean: Native language

■ English: Business Level

SKILLS

Python, C++, ROS, Docker, LaTeX, MATLAB, PyTorch, TensorFlow,

REFERENCES

■ **Donghwan Lee**
Vision Group Leader at NAVER LABS
donghwan.lee@naverlabs.com

■ **Martin Humenberger**
Director of Science at NAVER LABS
martin.humenberger@naverlabs.com

■ **Professor Changick Kim**
Professor in School of Electrical Engineering at KAIST
changick@kaist.ac.kr

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