

# 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] 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.
- [2] 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)
- [3] **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)
- [4] 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.
- [5] 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.
- [6] Jaehoon Choi\*, **Dongki Jung\***, Donghwan Lee, Changick Kim, “SAFE.Net: Self-Supervised Monocular Depth Estimation with Semantic-Aware Feature Extraction,” Accepted to *The 34th Annual Conference on Neural Information Processing Systems Workshop (NeurIPS W)*, Vancouver, Canada, 2020. (\* equal contribution)
- [7] **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.
- [8] 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
  - 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,  $\text{\LaTeX}$ , MATLAB, PyTorch, TensorFlow,

**REFERENCES**

- **Donghwan Lee**  
Vision Group Leader at NAVER LABS  
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- **Martin Humenberger**  
Director of Science at NAVER LABS  
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- **Professor Changick Kim**  
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