Minjeong Park

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Research Interests

My research interests lie in the field of computer vision, machine learning, and its applications. Most recently, my research has focused on 3D scene understanding and vision-language models for open-world settings.

Education

Yonsei University *Seoul, Korea*
M.S. *in Electrical and Electronic Engineering* *Aug 2024*

- Advised by Prof. Sangyoun Lee
- Thesis: Pedestrian Attribute Recognition via Text-guided Semantic Representation

Kyung Hee University, Seoul, Korea *Seoul, Korea*
B.S. *in Computer Science and Engineering* *Aug 2022*

Research Experience

Korea University *Seoul, Korea*
Research Assistant, Vision & AI Lab *Aug 2024 – Present*

- Advised by Prof. Jinkyu Kim
- Designed person retrieval networks leveraging open-vocabulary person attribute recognition.
- Developed an efficient visual SLAM model to improve convergence rates and enhance reconstruction quality.

Korea Institute of Science and Technology (KIST) *Seoul, Korea*
Student Researcher, Center for Artificial Intelligence *Sep 2022 – Jul 2024*

- Advised by Dr. Heeseung Choi
- Designed person re-identification and pedestrian attribute recognition algorithms to enhance robustness in real-world scenarios.

Yonsei University *Seoul, Korea*
Graduate Research Assistant, Image and Video Pattern Recognition Lab *Sep 2022 – Aug 2024*

- Designed attribute recognition networks to improve OOD robustness.

Kyung Hee University *Seoul, Korea*
Undergraduate Research Assistant, Visual and Media Lab *Mar 2021 – Aug 2022*

- Developed a neural image compression algorithm by implementing block-based adaptive resizing.

Laon People (Global ICT Internship Program) *San Jose, CA*
Research Intern, AI Traffic Solution Team *Jul 2021 – Aug 2021*

- Trained deep learning-based vehicle tracking model.
- Built upgraded tracking algorithm for occluded vehicles.

Publications

LRSLAM: Low-rank Representation of Signed Distance Fields in Dense Visual SLAM System
Hongbeen Park, **Minjeong Park**, Giljoo Nam, Jinkyu Kim*
*European Conference on Computer Vision (**ECCV**), 2024*

Person Retrieval with Open Vocabulary Attribute Recognition Through Region Understanding
Minjeong Park, Hongbeen Park, Jinkyu Kim*
Preprint

ViTA-PAR: One-to-One Visual and Textual Alignment for Pedestrian Attribute Recognition
Minjeong Park, Hongbeen Park, Jinkyu Kim*
Preprint

Multi-Attention based Pedestrian Attribute Recognition with Learnable Multimodal Prompts
Minjeong Park, Sangyoun Lee, Ik-Jae Kim, Heeseung Choi*
(Domestic) Proceedings of IEIE, 2024

Neural Image Compression using Block based Adaptive Resizing
Minjeong Park, Yeongwoong Kim, Donghyun Kim, Sung Chang Lim, Hui Yong Kim*
(Domestic) Proceedings of the Korean Society of Broadcast Engineers Conference, 2022

Patents

Method and Apparatus for Encoding/Decoding Image and Storage Medium for Storing Bitstream — Jun 2023
Korea, 1020230074338
PCT/KR2023/007985

Honors & Awards

Full scholarship — Sep 2022 - Jun 2024
Yonsei University
Scholarship

Yonsei Graduate Fellowship — Sep 2022 - Aug 2023
Yonsei University
Scholarship

3rd place in Silicon Valley Software Technology and Innovation Program — Feb 2021
San Jose State University
Award

SW College Project Scholarship — Sep 2020, Sep 2021
Kyung Hee University
Scholarship

External Affair Supporters Scholarship, Kyung Hee University — Mar 2021 - Feb 2022
Scholarship

Skills

Programming Language: Python, C/C++, C, Swift, JavaScript

Tools: Pytorch, TensorFlow, OpenCV, Matplotlib, React, mongoDB