Jinhyun **Jang**

Joint M.S & Ph.D Candidate · Yonsei University

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Summary

Research Interest Deep learning, Computer vision, Vision-language models, Object detection, Video understanding, Generative models

Current Focus Open-vocabulary object detection, Visual grounding

Education

Yonsei University — *Seoul, S.Korea*

Joint M.S & Ph.D Candidate, Electrical & Electronic Engineering — *Mar. 2020 - Present*

- Supervisor: Prof. Kwanghoon Sohn.

Yonsei University — *Seoul, S.Korea*

B.S., Electrical & Electronic Engineering — *Feb. 2020*

Publication

"Improving Visual Recognition via Visual-Semantic Hierarchy Mapping"

HyeoungJun Kwon, **Jinhyun Jang**, Jin Kim, Kwonyoung Kim and Kwanghoon Sohn — *Jun. 2024*

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024.

"Knowing Where to Focus: Event-aware Transformer for Video Grounding"

Jinhyun Jang, JungIn Park, Jin Kim, HyeoungJun Kwon and Kwanghoon Sohn — *Oct. 2023*

- IEEE/CVF International Conference on Computer Vision (ICCV), 2023.

"Probabilistic Prompt Learning for Dense Prediction"

HyeoungJun Kwon, Taeyong Song, Somi Jeong, Jin Kim, **Jinhyun Jang**, and Kwanghoon Sohn — *Jun. 2023*

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.

"Semantic-Aware Network for Aerial-to-Ground Image Synthesis"

Jinhyun Jang, TaeYong Song and Kwanghoon Sohn — *Sep. 2021*

- International Conference on Image Processing (ICIP), 2021.

Patent

"Video Grounding Apparatus and Method"

Jinhyun Jang and Kwanghoon Sohn — *Mar. 2024*

- Korean patent,

"Cross-modal Retrieval Learning Apparatus and Method"

Jinhyun Jang and Kwanghoon Sohn — *Apr. 2023*

- Korean patent, 10-2023-0047216

"Aerial-to-Ground Image Synthesis Apparatus and Method"

Jinhyun Jang and Kwanghoon Sohn — *Dec. 2021*

- Korean patent, 10-2021-0166722

Research Project

Development of Complex Situational Awareness and Prediction Technology through Multi-modal Data Fusion and Social Artificial Intelligence — *Seoul, S.Korea*

Funded by Ministry of Science, Mid-level Research — *Jan. 2024 - Present*

- Developed an algorithm for video grounding

Development of Object Detection and Tracking via Deep Learning *Seoul, S.Korea*

Funded by LIG NEX1 *Apr. 2021 - Jun. 2022*

- Developed an algorithm for object detection and tracking

Deep Identification and Tracking of Missing Person in Heterogeneous CCTV *Seoul, S.Korea*

Funded by Ministry of Science, National Research Foundation *Mar. 2020 - Feb. 2022*

- Developed an algorithm for pedestrian detection, tracking, re-identification

Honors & Awards

2020 **3rd Award**, DACON Deepfake Face Detection Challenge *Seoul, S.Korea*

Experiences

Lab Manager *Seoul, S.Korea*

Digital Image Media Lab *Sep. 2023-Present*

Teaching Assistants *Seoul, S.Korea*

Dept. of Electrical & Electronic Engineering, Yonsei University

- Internship: Text-to-Image Generation, Spring, 2022
- Internship: Generative Models, Winter, 2021
- Signals and Systems, Fall, 2021
- Introductory Digital Experiments, Fall, 2020

Skills

Programming Python, Lua, C/C++, MATLAB
Deep learning Pytorch, Tensorflow
Languages Korean, English