Jiwoo Choi

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Summary

I am a master student majoring in Artificial Intelligence at Yonsei University. I am currently doing research focusing on images and videos. It is interesting to generate something and I am considering safeAI at the same time. My research interests include Generative Models and AI watermarking against GenAI.

Research Interests: Generative Models, AI watermarking (containing Adversarial Watermark)

Education

Yonsei University, MS in Artificial Intelligence

March 2025 - Present

- Advised by Prof. Seon Joo Kim
- GPA: 4.3/4.3 (Complete Semesters: 1)
- Coursework: Recent Trends in Computer Vision, Topics in Visual Computing 1, Engineering and Regional Leadership

Ewha Womans University, BS in Biomedical and Mechanical Engineering

March 2020 - Feb 2025

- Specialized program in Software Convergence (Double major)
- GPA: 3.79/4.3
- Led the student body as a freshman student representative
- Coursework: Problem Solving and Software Programming, Mechanical Design and Drawing, Thermodynamics, Introduction to Python Programming & Data Analysis, Statistical Learning Theory, Computer Algorithms, Data Structures

Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen University

March 2023 - August 2023

- Exchange Program in Computer Science
- Coursework: Computer Vision, Reinforcement Learning and Learning-based Control, Machine Learning with Graphs (Foundations and Applications)

Experience

Research Intern, CIPLAB in Yonsei University - Seoul, Korea

July 2024 – Present

- Researching old-contents modernization through color style transfer
- Followed up on papers related to Object Editing (Insertion & Removal) and participated in research aimed at generating scene-to-object and object-to-scene effects

Research Intern, Kist (Korea Institute of Science and Technology) – Seoul, Korea

Sept 2023 - Dec 2023

- Studied Generative models for solving human occlusion problem
- Participated in projects to train multi view 3D human pose estimation by inputting 2D human skeleton

Research Intern, Kist (Korea Institute of Science and Technology) – Seoul, Korea

Dec 2022 - Feb 2023

- Studied projects to train and predict transformer models for pose estimation
- Followed up on overall topics related to action recognition and temporal action localization

Publications

ORIDa: Object-centric Real-world Image Composition Dataset – CVPR 2025

Feb 2025

Jinwoo Kim, Sangmin Han, Jinho Jeong, Jiwoo Choi, Dongyoung Kim, Seon Joo Kim

Visual Fidelity vs. Robustness: Trade-Off Analysis of Image Adversarial Watermark Mitigated by SSIM Loss – *ICLRW* 2025

Feb 2025

Jiwoo Choi, Jinwoo Kim, Sejong Yang, Seon Joo Kim

Study on Small Object Tracking with OBB Annotations: A Comparative Analysis of ByteTrack and StrongSORT – $IPIU\ 2025$

Jab 2025

Jiwoo Choi, Seon Joo Kim accepted as bachelor's thesis

Projects

Hanium ICT project 2024

• Received the Director's Award from the Institute for Information and Communications Technology Planning and Evaluation (IITP).

• Title: Performance Analysis of OBB Models for Small Object Detection Using the SAT-MTB Dataset

Capston project 2024

- Title: Furniture 3D modeling from text prompt
- Modifying Text-to-3D Generation Model (LGM) for Furniture sellers using ABO datasets
- Tools Used: Pytorch, Python, Gradio

Technologies

Programming Languages: C++, Python, Pytorch

Languages: Korea (Native), English