DongYun Kim

kdyun01@naver.com | https://github.com/DongDong810

Summary

I am a senior student majoring in Economics and Computer Science. I am currently interested in computer vision, especially in image editing techniques using diffusion models, as well as enhancing data quality in low-level vision through the generation of raw images and improving performance in downstream tasks through these generated data.

Education

Yonsei University Mar '20 - Present
B.S. in Economics (Major)
B.S. in Computer Science (Double Major)

- **GPA:** 4.27 / 4.3
- **Coursework:** Introduction to Computer Science, Object-Oriented Programming, Discrete Structures, Data Structures, Computer Architecture, Operating Systems, Introduction to Data Visualization, SW-AI Business Application Design, Computer Vision, Artificial Intelligence Algorithms, Economics Coding 1, Understanding Financial Engineering 1

Research Interests

- Low-level vision
- Image editing with diffusion model
- sRGB-to-RAW, text-to-RAW conversion

Experience

Campus Club Jan '24 - Present

Yonsei Algorithm Solving Club (Molgorithm)

- Improved algorithm problem-solving skills and programming abilities

Campus Academic Conference July '24 - Present

Yonsei Artificial Intelligence Conference (YAI)

- Focused on following up on research papers related to object detection and segmentation and implementing applications based on the techniques
- Conducted a study on recent research papers related to image editing tasks

Research Intern July '24 - Present

Computational Intelligence & Photography Lab (CIPLAB) (Advisor: Prof. SeonJoo Kim)

- Followed up on overall topics related to forward & inverse ISP and image restoration
- Implemented an auto white balancing model based on the FC4 paper
- Working on photo-finishing style transfer project
- Conducting a study on diffusion models for implementing a model for sRGB-to-RAW, text-to-RAW

Projects

Toy projects

- Bird classification task with ResNet
- Implementation of Transformer model
- Deep hedging with RNN
- Implementation of a simple chatbot using LLM models (Huggingface & LangChain)

Face Mosaic July ’24 - Aug ’24

- Developed an image and video face mosaic system using R-CNN models from the Detectron2 library

Photo-finishing style transfer Aug ’24 - Present

- Working on a task to learn only camera calibration values and apply them to different images without distorting contents

Skills

Programming Languages: C, C++, Java, Python (Pytorch)

Languages: Korean (Native), English