Jiho Choi

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Division of Electronic Engineering, Jeonbuk National University, Jeonju, Korea

PhD candidate in the field of Computer Vision and Deep Learning.
Currently, I am conducting research on the application of remote physiological estimation for uncontrolled environments.

EDUCATION

Jeonbuk National University Sep. 2023-Present
PhD candidate in Division of Electronic Engineering
Adviser: Prof. Sang Jun Lee

Jeonbuk National University Sep. 2021-Aug. 2023
M.S student in Division of Electronic Engineering

Jeonbuk National University Mar. 2017- Aug. 2021
B.S in Division of Electronic Engineering

PUBLICATIONS

J. Choi and S. J. Lee*, "MMDrive: Multi-modal Remote Physiological Signal Measurement Dataset for Driver Status Monitoring", in CVPR 2025 workshop, June 2025.

J. Choi, G. Hwang, Y. Ji, H. Yoon and S. J. Lee*, "PFSH-Net: Parallel frequency-spatial hybrid network for segmentation of kidney stones in pre-contrast computed tomography images of dogs," Computers in Biology and Medicine, 01 Mar. 2025. (IF: 7.0, JCR 2.3%)

J. Choi and S. J. Lee*, "DINO-rPPG: Remote Photoplethysmography Measurement using Facial Representation from DINO Guidance," in IJCAI 2024 workshop, Aug. 2024. (oral)

J. Choi, G. Hwang, S. J. Lee*, "DiCo-NeRF: Difference of Cosine Similarity for Neural Rendering of Fisheye Driving Scenes," in CVPR 2024 workshop, June 2024.

J. Choi and S. J. Lee*, "Neural Radiance Fields for Fisheye Driving Scenes Using Edge-Aware Integrated Depth Supervision," Sensors, 22 Oct. 2024. (IF: 3.4)

E. Son, **J. Choi**, J. Song, Y. J. and S. J. Lee*, "Monocular Depth Estimation from a Fisheye Camera based on Knowledge Distillation," Sensors, 16 Dec. 2023. (IF: 3.9)

J. Choi, G. Hwang, J. S. Lee, M. Ryu, and S. J. Lee*, "Weighted Knowledge Distillation of Attention-LRCN for Recognizing Affective States from PPG Signals," *Expert Systems with Applications*, 2023. (IF: 8.5, JCR 6.4%)

J. Choi, S. J. Lee, "Weakly Supervised Learning for Transmission Line Detection using Unpaired Image-To-Image Translation," *Remote Sensing*, 2022. (IF: 5.349)

J. Choi, J. S. Lee, M. Ryu, G. Hwang, G. Hwang, S. J. Lee, "Attention-LRCN: Long-term Recurrent Convolutional Network for Stress Detection from Photoplethysmography," *IEEE International Symposium on Medical Measurements and Applications (MeMeA)*, 2022. (Oral)

PROJECT EXPERIENCE

Depth Estimation May. 2022~Apr. 2023
Project sponsored by Samsung Electronics Co., Ltd
Visual localization based on around-view depth estimation for driving environment recognition task

Remote Physiological Estimation May. 2022-Dec.2022
Project sponsored by Electronics and Telecommunications Research Institute (ETRI)
Development of non-contact blood pressure monitoring technology using video-based physiological Signals

Delivery Robot April. 2023-Present
Project sponsored by Polaris3d
Development of a cloud-edge AI integrated indoor-outdoor delivery robot for last-mile delivery in multi-storey buildings

LANGUAGE SKILLS

English Independent user **Korean:** Native speaker

TOOLS

Python, Pytorch, OpenCV, Matlab

References

Advisor: Prof. Sang Jun Lee
Jeonbuk National University
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https://sites.google.com/view/miljbnu/