Woojung Han

Ph.D. Candidate @ MICV Lab, YONSEI

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Education

Dept. of Computer Science Yonsei University

Seoul. Korea 2022-Present

Relevant Courses: Advanced image processing, Medical image analysis, Deep learning for natural language processing, Generative model and data synthesis, Machine learning and pattern recognition.

Dept. of Human Intelligence and Information Engineering Sangmyung University **Seoul, Korea** *2017-2022* Relevant Courses: C Programming, Python, Data Structure, Linear Algebra, Discrete Mathematics, Probability and Statistics, Algorithm, Big Data Analysis, Machine Vision Programming, Bio Sytstem, Open API Programming.

Conference (* Equal contribution)

- 1. EAGLE: Eigen Aggregation Learning for Object-Centric Unsupervised Semantic Segmentation, Chanyoung Kim*, Woojung Han*, Dayun Ju, Seong Jae Hwang, Computer Vision and Pattern Recognition (CVPR), 2024. (HIGHLIGHT, top 2.8% of submitted papers.) (paper)(project page)
- 2. Advancing Text-Driven Chest X-Ray Generation with Policy-Based Reinforcement Learning, Woojung Han*, Chanyoung Kim*, Dayun Ju, Seong Jae Hwang, Medical Image Computing and Computer Assisted Intervention (MICCAI), 2024. (EARLY ACCEPT& SPOTLIGHT, top 3.4% of submitted papers.) (paper)(project page)
- 3. Effect of Time Window Size for Converting Frequency Domain in Real-Time Remote Photoplethysmography Extraction, Yu Jin Shin, Woojung Han, Kun Ha Suh & Eui Chul, IHCl, 2021. (Paper)

Journal

1. CoBra: Complementary Branch Fusing Class and Semantic Knowledge for Robust Weakly Supervised Semantic Segmentation, Woojung Han, Seil Kang, Seil Kang, Kyobin Choo, Seong Jae Hwang, Pattern Recognition [Impact Factor: 7.5], 2024. (elsevier) (paper)(project page)

Workshop Publications (* Equal contribution)

1. EAGLE: Eigen Aggregation Learning for Object-Centric Unsupervised Semantic Segmentation, Chanyoung Kim*, Woojung Han*, Dayun Ju, Seong Jae Hwang, CVPRW, 2024. Casual and Object-Centric Representations for Robotics

Professional Experience

M.S./Ph.D Student, (Medical Imaging and Computer Vision Lab) Yonsei University, Korea 03/2022 - present • Weakly Supervised Semantic Segmentation (WSSS).

- Unsupervised Semantic Segmentation (USS).
- Diffusion Models for Medical Imaging.

Bootcamp, (Google Developer)

Google Machine Learning Bootcamp 2022.

(Algorithm Machine Intelligence Lab)

• Efficient human behavior understanding.

• Human mesh Recovery.

Intern, (Korea University Computer Vision Lab)

• Hand Grasp Type Estimation.

Intern. (Pattern Recognition Lab)

• Real-time Remote photoplethysmography extraction.

Seoul, Korea 06/2022 - 09/2022

POSTECH, Korea *06/2021 - 08/2021*

Korea University, Korea 03/2021 - 06/2021

Sangmyung University, Korea 09/2018 - 11/2020

Professional Services

Honors & Awards

- Lip Reading (2nd Prize) (Dec. 2021) Graduation Project
- Medical Segmentation (3rd Prize) (Dec. 2021) MAIC Surgical Instruments Segmentation
- Health Care Body Position (3rd Prize) (Feb. 2021) Korea SW Central University Hackton
- Music Recommendation (4rd Prize) (Dec. 2020) SM AI Competition
- Image Inpainting (2nd Prize) (Dec. 2020) SM AI Competition

Certifications

- Tensorflow Developer Certificate (July. 2022) Tensorflow
- YONSEI Medical Scientist Training Program (July. 2023) Yonsei University
- Summer Program in University of Southern California (Aug. 2023) USC

Teaching Experience

Teacher Samsung
DX training, AI Project.

Teacher Samsung

AI, DX, Perceptron, AI Project.

Coach NAVER+MOBULABS

Basic of AI, AI Team Project Coach.

Coach NAVER+MOBULABS

Basic of AI, AI Team Project Coach.

Coach NAVER+MOBULABS

Basic of AI, AI Team Project Coach.

Coach KT AIVLE

Basic of Al, Machine Learning, Deep Learning.

Coach LG Academy Al Camp

Classification, RNN, Text Classification, Segmentation.

Outsourcing

FaceSwap

Skills

- Python, Pytorch, Keras, Tensorflow.
- C, C++, Java, MATLAB.