# **Yechan Hwang**

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# Education

Pohang University of Science and Technology (POSTECH), Pohang, South Korea

Sep. 2022 - present

M.S.-Ph.D. integrated, Computer Science and Engineering

- Medical Information Processing Lab
- Adviser: Won Hwa Kim

Pohang University of Science and Technology (POSTECH), Pohang, South Korea

Mar. 2018 - Aug. 2022

B.S., Computer Science and Engineering

• GPA: 3.76 / 4.3

## Research Interests

- Graph Machine Learning
- Medical Imaging
- Computer Vision

### **Publications**

#### International Publication

- 1. **Yechan Hwang**, Soojin Hwang, Guorong Wu, Won Hwa Kim, "Multi-order Simplex-based Graph Neural Network for Brain Network Analysis", *Medical Image Computing and Computer Assisted Intervention* (**MICCAI**), 2024.
- 2. Joonhyuk Park\*, **Yechan Hwang**\*, Minjeong Kim, Moo K. Chung, Guorong Wu, Won Hwa Kim, "Brain Connectome Analysis for Alzheimer's Disease using Hodge Laplacian-based Edge Convolution", *Annual Meeting of the Organization for Human Brain Mapping* (**OHBM**), 2024. [\*: equal contribution]
- 3. Joonhyuk Park\*, **Yechan Hwang**\*, Minjeong Kim, Moo K. Chung, Guorong Wu, Won Hwa Kim, "Convolving Directed Graph Edges via Hodge Laplacian for Brain Network Analysis", *Medical Image Computing and Computer Assisted Intervention* (MICCAI), 2023. [Early accepted: 14%, \*: equal contribution]
- 4. Ellen Jieun Oh, Yechan Hwang, Yubin Han, Taegeun Choi, Geunyoung Lee, Won Hwa Kim, "RESToring Clarity: Unpaired Retina Image Enhancement using Scattering Transform", Medical Image Computing and Computer Assisted Intervention (MICCAI), 2023.

## **Domestic Publication**

1. Hyuna Cho, Injun Choi, **Yechan Hwang**, Suha Kwak, Won Hwa Kim, "Interactive Network Perturbation for Semi-Supervised Semantic Segmentation", *Workshop on Image Processing and Image Understanding* (IPIU), 2023. [**Oral Presentation**; Awarded a silver prize at IPIU best paper contest]

## **Honors and Awards**

POSTECH CSE Global Leadership Program

2019, 2020

• Merit Based Scholarship, POSTECH

2018-2021

# **Teaching Experience**

Teaching Assistant, Computer Science and Engineering, POSTECH, South Korea

• CSED273: Digital System Design

Mar. 2023 - Jun. 2023