

Hakjun Lee

hakjun-14.github.io

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Research Interests

Deep Learning, Computer Vision, Deep Metric Learning, Weakly-Supervised Learning, Medical Image Analysis

Education

Korea University

Seoul, South Korea

Master of Computer Science and Engineering

Class of 2024

- Thesis “Multi-scale Attention-based Manifold Contrastive Learning for Weakly-Supervised Histopathology Image Classification”

Korea University

Seoul, South Korea

Bachelor of Computer Science and Engineering

Class of 2022

Research Experience

High-performance Visual Computing Lab (HVCL)

Seoul, South Korea

Graduate Researcher (Master's Program) @ Korea University

Sep 2022 – Aug 2024

- Conducted research on multi-scale attention-based manifold contrastive learning for histopathology image classification
- Designed a novel model architecture for weakly-supervised learning in medical imaging applications

Undergraduate Research Intern @ Korea University

Sep 2020 – Aug 2022

- Developed a detection algorithm to analyze mitochondria in neurons
- Build artificial Trans-UNet based End-to-End learning model to improve neuron structure segmentation

Publications

[C1] MitoVis: A Unified Visual Analytics System for End-to-End Neuronal Mitochondria Analysis

Jun Young Choi, **HakJun Lee**, Su Yeon Kim, Seok-Kyu Kwon, Won-Ki Jeong*

IEEE TVCG (2023) ([Link](#))

Poster Presentation

[P1] Multi-scale Attention-based Manifold Contrastive Learning for Weakly-Supervised Histopathology Image Classification.

HakJun Lee, Won-Ki Jeong*,

AI Bio-healthcare Drug Discovery Summit (Oct. 2024)

Honors and Awards

Korea University

Honors

- Semester High Honors (Spring 2018, Fall 2020 - Spring 2022)

Scholarships

- KU Global Mentoring Scholarship (Fall 2021)
- Work-study Scholarship (Spring 2017 - Fall 2017)
- Special Scholarship (Spring 2017)

Teaching

(COSE 436) Interactive Visualization Fall 2023
Teaching Assistant @ Korea University

Fall 2023

Non-Research Experience

Veritas, Special admission program of overseas Koreans
Consultant

Seoul, South Korea
Jul 2022 – Mar 2023

- Provides academic counseling and career consulting services for overseas Korean students aiming to advance to Korean universities

Leadership and Service

The Armed Force Medical Command, Yangju Hospital
Squad Leader

Yangju, South Korea
Jan 2019 – Sep 2020

- Took full responsibility of 14 squad members by holding daily meetings to receive situation reports, conducting on-the-job training sessions and issuing direct command orders during COVID-19 crisis

Tigris, Amateur Ice-hockey team
Captain @ Korea University

Seoul, South Korea
Dec 2020 – Dec 2022

- Fully fulfilled the responsibility of the activities of the member safety campaign in the situation of COVID-19, confirming the epidemic prevention compliance items before the exercise and constantly confirming the confirmed flow line.

ICCUS, International Cultural work Camp of University Students
Club Vice President @ Korea University

Seoul, South Korea
Jan 2018 – Dec 2018

- Directly planned and managed a camp at a college student NGO that led camps to experience local culture through volunteer work at various local festivals

Additional Information

Language:	Korean (Native), Japanese (Native, JLPT N1)
English Proficiency:	TOEFL 91 (R21, L25, S24, W21)
Skills:	Python, C, MATLAB
Programming Libraries:	PyTorch, Tensorflow, Pandas, Scikit-learn, CUDA
Websites:	LinkedIn , GitHub (Hakjun-14)

References

Prof. Won-Ki Jeong
Professor, Korea University
Relationship: MS advisor
Email: wkjeong@korea.ac.kr