

# Joohyeok Kim

AI RESEARCHER (COMPUTER VISION & MEDICAL AI)

Seoul, South Korea

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## Education

### Yonsei University

M.S. in Artificial Intelligence

- Advisor: Prof. Seong Jae Hwang

Seoul, South Korea

Sep. 2025 - Present

### Kwangwoon University

B.S. in School of Information Convergence, Major in Data Science

- Valedictorian (Rank: 1/54)
- GPA of 4.42 / 4.5

Seoul, South Korea

Mar. 2018 - Feb. 2025

## Experience

### Medical Imaging and Computer Vision (MICV) Laboratory, Yonsei University

Graduate Researcher

Seoul, South Korea

Jan. 2025 - Present

### AI as a Service (AlaaS) Laboratory, Kwangwoon University

Undergraduate Researcher

Seoul, South Korea

Jun. 2023 - Dec. 2024

## Selected Publications & Patents

### FEAST: Fully Connected Expressive Attention for Spatial Transcriptomics

Taejin Jeong\*, Joohyeok Kim\*, Jinyeong Kim, Chanyoung Kim, Seong Jae Hwang

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2026

2026

### Rethinking Glaucoma Calibration: Voting-Based Binocular and Metadata Integration

Taejin Jeong, Joohyeok Kim, Jaehoon Joo, Seong Jae Hwang

- IEEE International Symposium on Biomedical Imaging (ISBI Oral), 2026

2026

### Interpreting vision transformers via residual replacement model

Jinyeong Kim, Junhyeok Kim, Yumin Shim, Joohyeok Kim, Sunyoung Jung, Seong Jae Hwang

- Neural Information Processing Systems (NeurIPS), 2025

2025

### Contrastive and Adaptive Multi-modal Masked Autoencoder for Spatial Transcriptomics

Joohyeok Kim, Taejin Jeong, Jinyeong Kim, Seong Jae Hwang

- Preprint, under review

2026

### EP-SAM: Weakly Supervised Histopathology Segmentation via Enhanced Prompt with Segment Anything

Joonhyeon Song, Seohwan Yun, Seongho Yoon, Joohyeok Kim, Sangmin Lee

- Preprint

2024

### Apparatus and method for weakly supervised semantic segmentation framework of image and computer-readable recording medium including the same

Inventor

- Application No. 10-2024-0117533, filed August 2024

2024

## Awards & Scholarships

### Selected Awards

Kwangwoon University

- 2nd Prize, 2024 KW-ACE (KwangWoon AI Convergence Expo) Graduation Project Exhibition
- Dean's List (2019 Spring, 2022 Fall)

Seoul, South Korea

## Academic Scholarship

Kwangwoon University

- Full-Tuition Scholarship (2023 Fall, 2023 Spring, 2019 Fall, 2019 Spring)
- Half-Tuition Scholarship (2018 Fall)
- Quarter-Tuition Scholarship (2022 Fall, 2022 Spring)

Seoul, South Korea

Selected Semesters (2018-2023)

## Extracurricular Activity

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### QI LAB (Start-up)

AI Developer

Seoul, South Korea

Mar. 2024 - Sep. 2024

- Selected for the Campus Town startup support program, receiving office space and funding for patent filing and product development.

### LG Aimers 2nd & 4th

Team Leader

Jan. 2023, Jan. 2024

- Participated in data hackathons organized by LG AI Research, attending lectures on data analysis and contributing to model development.

## Skills

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**Programming** Python, PyTorch, Git, GitHub, Linux, Slurm

**Languages** Korean (Native), English (TOEIC 930)