

CURRICULUM VITAE

Minjun Kim

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EDUCATIONS

2021 - Present Ph. D. candidate in Electrical and Computer Engineering
Department of Electrical and Computer Engineering
Seoul National University, Seoul, Korea

Adviser: Professor Jongho Lee

2015 - 2020 B. S. in Computer Science
Department of Computer Science
Hongik University, Seoul, Korea.
GPA: 4.11 / 4.5

HONORS AND AWARDS

- Summa Cum Laude Award (top 5%), “Harmonization for a Black-box Model using Disentanglement-based Generator and Bayesian Optimization”, 35th Annual Meeting of International Society of Magnetic Resonance in Medicine, Cape Town, 2026
- Summa Cum Laude Award (top 5%), “BrainMR Specialist: A Foundation Model of Brain MRI for Diverse Downstream Applications”, 35th Annual Meeting of International Society of Magnetic Resonance in Medicine, Cape Town, 2026
- Magna Cum Laude Award (top 15%), “Contrast Synthesis Guided by Scan Parameters”, 35th Annual Meeting of International Society of Magnetic Resonance in Medicine, Cape Town, 2026
- Annual Meeting Program Committee Selected Abstract (top 1%), “Harmonization for a black-box deep learning model”, 34th Annual Meeting of International Society of Magnetic Resonance in Medicine, Hawaii, 2025
- Summa Cum Laude Award (top 5%), “Harmonization for a black-box deep learning model”, 34th Annual Meeting of International Society of Magnetic Resonance in Medicine, Hawaii, 2025
- Silver Award in Best Trainee Scientific Awards (Oral), “BboxHarmony: A Novel Harmonization Framework for a Black-box Deep-Learning Model”, 13th International Congress on MRI, Korea, 2025

- 1st place in Best Trainee Scientific Awards (Poster), " χ -separation net: Susceptibility source separation in the brain using deep neural network", 9th International Congress on MRI, Seoul, Korea, 2021
- 1st place in Pre-Startup Package 2020, Korea Institute of Startup & Entrepreneurship Development 2021
- 4th place in Graduation Project Contest 2020, Hongik University, 2021
- 1st place in Startup Contest 2019, Dongduk Women's University, 2020.
- Academic Excellence Scholarship, 2016-2020.

JOURNAL PUBLICATIONS

- S. Ji, **M. Kim**, J. Lee, HG. Shin, "Resolution Generalization of Deep Learning-based Dipole Inversion Networks for QSM", NeuroImage, 2025
- J. Yoon, H. Park, **M. Kim**, H. Jeong, SY. Chun, S. Ji, J. Lee, "Clinical dementia rating classification using integrated vision and language information", IEEE Access, 2025
- T. Kim, S. Ji, K. Min, **M. Kim**, J. Youn, C. Oh, J. Kim, J. Lee, "Vessel segmentation for χ -separation in quantitative susceptibility mapping", Magnetic Resonance in Medicine, 2025
- J. Kim, **M. Kim**, S. Ji, K. Min, H. Jeong, HG. Shin, C. Oh, R. J Fox, K. E Sakaie, M. J Lowe, S. Oh, S. Straub, SG. Kim, J. Lee, "In-vivo high-resolution χ -separation at 7T", NeuroImage, 2025
- **M. Kim**, S. Ji, J. Kim, K. Min, H. Jeong, J. Youn, T. Kim, J. Jang, B. Bilgic, HG. Shin, J. Lee, " χ -sepnet: Deep neural network for magnetic susceptibility source separation", Human Brain Mapping, 2025
- K. Min, B. Sohn, W. J. Kim, C. J. Park, S. Song, D. H. Shin, K. W. Chang, NY. Shin, **M. Kim**, HG. Shin, P. H. Lee, J. Lee, "A human brain atlas of χ -separation for normative iron and myelin distributions", NMR in Biomedicine, 2024
- S. Ji, J. Jang, **M. Kim**, H. Lee, W. Kim, J. Lee, HG. Shin, "Comparison between R2'-based and R2*-based χ -separation methods: A clinical evaluation in individuals with multiple sclerosis", NMR in Biomedicine, 2024
- S. Lee, HG. Shin, **M. Kim**, J. Lee, "Depth-wise profiles of iron and myelin in the cortex and white matter using χ -separation: A preliminary study.", NeuroImage, 2023

UNDER REVIEW

- **M. Kim***, D. J. Mun*, H. Jeong, H. Lee, SY. Chun, J. Lee, “A Target-Free Harmonization Method for MRI”, *Under review, 2026*
- H. Seo*, B. H. Lee*, **M. Kim***, D. Mah, J. Lee, SY. Chun, “Strong Helps Weak: Directional Cross-Modal Alignment Transfer in Multi-modal LLMs”, *Under review, 2026*

CONFERENCES

ORAL

- **M. Kim***, D. J. Mun*, H. Jeong, H. Lee, SY. Chun, J. Lee, “Harmonization for a Black-box Model using Disentanglement-based Generator and Bayesian Optimization”, 35th Annual Meeting of International Society of Magnetic Resonance in Medicine, Cape Town, 2026
- J. Park*, **M. Kim***, R. Hong*, J. Koo*, RE. Yoo, SH. Choi, J. Lee, “BrainMR Specialist: A Foundation Model of Brain MRI for Diverse Downstream Applications”, 35th Annual Meeting of International Society of Magnetic Resonance in Medicine, Cape Town, 2026
- J. Koo*, **M. Kim***, T. Kim, R. Hong, J. Kim, Jeong, H. Lee, SY. Chun, J. Lee, “Contrast Synthesis Guided by Scan Parameters”, 35th Annual Meeting of International Society of Magnetic Resonance in Medicine, Cape Town, 2026
- **M. Kim**, D. J. Mun, H. Jeong, H. Lee, SY. Chun, J. Lee, “BboxHarmony: A Novel Harmonization Framework for a Black-box Deep-Learning Model”, 13th International Congress on MRI, Korea, 2025
- **M. Kim**, H. Jeong, H. Seo, W. Jeong, J. Park, SY. Chun, J. Lee, “Harmonization for a black-box deep learning model”, 34th Annual Meeting of International Society of Magnetic Resonance in Medicine, Hawaii, 2025
- K. Min, B. Sohn, W. J. Kim, C. J. Park, S. Song, D. H. Shin, K. W. chang, NY. Shin, **M. Kim**, HG. Shin, P. H. Lee, J. Lee, “A human brain atlas of χ -separation (chi-separation) for normative iron and myelin distributions”, 33rd Annual Meeting of International Society of Magnetic Resonance in Medicine, Singapore, 2024
- J. Yoon, **M. Kim**, C. Oh, H. Jeong, K. Min, J. Youn, T. Kim, J. Lee, “Multimodal Approach for CDR : Vision-Language Integration for Enhanced Clinical DementiaRating Classification in Alzheimer’s Disease”, 33rd Annual Meeting of International Society of Magnetic Resonance in Medicine, Singapore, 2024
- S. Ji, J. Park, HG. Shin, **M. Kim**, J. Lee, “In-vivo delineation of fine structures in the human brain using high resolution deep learning-powered chi-separation”, 32nd Annual Meeting of International Society of Magnetic Resonance in Medicine, Canada, 2023

- **M. Kim**, B. Kim, J. Kim, H. Jeong, J. Park, H. Kim, SY. Chun, J. Lee, “Deep neural network for cardiomegaly classification on AP-view X-ray”, International Forum On Medical Imaging In Asia, Korea, 2023.
- **M. Kim**, HG. Shin, S. Ji, C. Oh, H. Jeong, H. An, J. Jang, B. Bilgic, J. Lee, “Chi-sepnet-R2*: Single-scan x-separation without R2’ using deep learning”, 10th International Congress on MRI, Korea, 2022.

** denoted for equal contribution*

POSTER

- J. Park, J. Yoon, **M. Kim**, J. Choi, J. Lee, “High-speed high-quality super”, 34th Annual Meeting of International Society of Magnetic Resonance in Medicine, Hawaii, 2025
- J. Park, J. Yoon, **M. Kim**, B. Moon, J. Lee, “Resolution translation for GRE using super-resolution network”, 34th Annual Meeting of International Society of Magnetic Resonance in Medicine, Hawaii, 2025
- **M. Kim**, HG. Shin, S. Ji, T. Kim, J. Lee, “Exploring the Impact of Input Combinations on Resolution Generalization in Susceptibility Source Separation Network”, 12th International Congress on MRI, Korea, 2024.
- T. Kim, S. Ji, K. Min, J. Youn, **M. Kim**, J. Kim, J. Lee, “Physics-informed vessel segmentation for χ -separation (chi-separation)”, 33rd Annual Meeting of International Society of Magnetic Resonance in Medicine, Singapore, 2024
- J. Kim, HG. Shin, **M. Kim**, S. Ji, K. Min, H. Jeong, SG. Kim, J. Lee, “In-vivo high-resolution χ -separation (chi-separation) at 7T”, 33rd Annual Meeting of International Society of Magnetic Resonance in Medicine, Singapore, 2024
- **M. Kim**, S. Ji, J. Yoon, H. Jeong, H. An, J. Kim, J. Youn, J. Kang, EY. Kim, Y. Nam, J. Lee, “Exploring the effects of tissue iron in neuromelanin MRI”, 32nd Annual Meeting of International Society of Magnetic Resonance in Medicine, Canada, 2023
- JH. Lee, HG. Shin, **M. Kim**, J. Lee, SH. Oh, “A toolbox of χ -separation for magnetic susceptibility source separation”, 32nd Annual Meeting of International Society of Magnetic Resonance in Medicine, Canada, 2023
- J. Jang, HG. Shin, **M. Kim**, H. Lee, W. Kim, “Comparison of chi-separation and chi-separation*: A clinical feasibility study”, 32nd Annual Meeting of International Society of Magnetic Resonance in Medicine, Canada, 2023
- S. Ji, J. Park, HG. Shin, J. Youn, **M. Kim**, J. Lee, “Successful generalization for data with higher or lower resolution than training data resolution in deep learning powered QSM reconstruction”, 32nd Annual Meeting of International Society of Magnetic Resonance in Medicine, Canada, 2023

- D. Park, **M. Kim**, H. Kim, J. Lee, SY. Chun, “Domain Adaptation From Posteroanterior to Anteroposterior X-Ray Radiograph Classification via Deep Neural Converter With Label Recycling”, International Conference on Electronics, Information, and Communication, 2023
- **M. Kim**, HG. Shin, C. Oh, H. Jeong, S. Ji, H. An, J. Kim, J. Jang, B. Bilgic, J. Lee, “Chi-sepnet: Susceptibility source separation using deep neural network”, 30th Annual Meeting of International Society of Magnetic Resonance in Medicine, United Kingdom, 2022
- H. Shin, J. Seo, Y. Lee, H. Jeong, S. Ji, **M. Kim**, J. Park, B. Kim, K. Lee, S. Kim, J. Jang, M. Wool, and J. Lee, "chi-separation using multi-orientation data in invivo and exvivo brains: Visualization of histology up to the resolution of 350 μm ", 30th Annual Meeting of International Society of Magnetic Resonance in Medicine, United Kingdom, 2022
- J. Kim, D. Shin, H. An, H. jeong, **M. Kim**, J. Lee, “Accelerated DeepRF using modified optimal control”, 30th Annual Meeting of International Society of Magnetic Resonance in Medicine, United Kingdom, 2022

TEACHING EXPERIENCES

- Teaching Assistant, Signal and System (undergraduate course), Summer semester, 2023, Seoul National University, Korea.
- Teaching Assistant, Creative Engineering Design (undergraduate course), Fall semester, 2021, Seoul National University, Korea.
- Teaching Assistant, Machine Learning (undergraduate course), Fall semester, 2020, Hongik University, Korea.

PROFESSIONAL EXPERIENCES

- Peer Reviewer of MICCAI (2026)
- Research coworker at RadiSen, January 2021.03-2022.11
- Assistant on 2021 SNU fastMRI challenge
- Research Internship at Laboratory for Imaging Science and Technology, September 2020–February 2021, Seoul, Korea.
- Company Representative and Backend Developer at With-Salon, June 2020- February 2021, Seoul, Korea.
- Assistant Backend Developer at Cy2Code, January 2020-March 2020, Seoul, Korea.

- Research Internship at SCALable ARchitecture Laboratory, March 2019–March 2020, Seoul, Korea.
- Sergeant, military information security manager, February 2017–November 2018, 1st Field Army Command, Korea.

RESEARCH INTERESTS

- Deep learning in medical image reconstruction and processing
- Domain adaptation / Multimodal AI / Foundation model / Agentic AI

LICENSES AND CERTIFICATES

- Craftsman Information Processing
- Getting Started with Google Kubernetes Engine by Google Cloud at Coursera
- Machine Learning by Stanford University at Coursera

SKILLS AND TECHNIQUES

- Programming: Python, C, C++, MATLAB, JavaScript
- Machine learning: Pytorch, Tensorflow
- Backend development: Node.js
- MRI systems: SIEMENS 3T
- NeuroImaging Tools: FSL, ANTs