

# CURRICULUM VITAE

**Jiye Kim**

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## EDUCATIONS

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- 2020.09 - Present      Ph. D. candidate in Electrical and Computer Engineering  
Department of Electrical and Computer Engineering  
**Seoul National University**, Seoul, Korea  
  
*Adviser: Professor Jongho Lee*
- 2025.11 - 2026.04      Visiting Student  
**Athinoula A. Martinos Center for Biomedical Imaging**,  
Massachusetts General Hospital and Harvard Medical School  
Charlestown, USA  
  
*Adviser: Professor Berkin Bilgic*
- 2016 – 2020.08      B.S. in Electrical and Computer Engineering  
Department of Electrical and Computer Engineering  
**Seoul National University**, Seoul, Korea  
*Cum Laude Honors*
- 2019      Study Abroad Exchange Program, Electrical Engineering  
**ETH Zurich**, Zurich, Switzerland

## HONORS AND AWARDS

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- ISMRM Magna Cum Laude Merit Award, “Visualization of in-vivo brainstem myeloarchitecture via  $\chi$ -separation at 7T”, 2025
- Best Trainee Scientific Awards Poster Presentation Grand Prix, International Congress on MRI & Annual Scientific Meeting of KSMRM, 2023
- Best Trainee Scientific Awards Poster Presentation Gold, International Congress on MRI & Annual Scientific Meeting of KSMRM, 2022
- Best Trainee Scientific Awards Oral Presentation 2<sup>nd</sup>, International Congress on MRI & Annual Scientific Meeting of KSMRM, 2021
- The Encouragement Prize, The Joint Conference of the IBEC and the ICBHI, 2021
- Academic Excellence Scholarship, 2018-2019

- Global Exchange Scholarship, Mirae Asset Park Hyeon Joo Foundation, 2019

## JOURNAL PUBLICATIONS

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- T. Kim, S. Ji, K. Min, M. Kim, J. Youn, C. Oh, **J. Kim**, and J. Lee, “Vessel segmentation for  $\chi$ -separation”, *Magnetic Resonance in Medicine* (2025)
- Y. Chen, Y. Jun, A. Heydari, X. Yong, **J. Kim**, J. Lee, ... & Bilgic, B., “MIMOSA: Multi-parametric Imaging using Multiple-echoes with Optimized Simultaneous Acquisition for highly-efficient quantitative MRI”, *Magnetic Resonance in Medicine* (2025)
- C. Oh, W. Jung, **J. Kim**, H. Jeong, and J. Lee, “A fair comparison in deep learning-based QSM reconstruction”, *IEEE Access* (2025)
- **J. Kim**, M. Kim, S. Ji, K. Min, H. Jeong, H.-G. Shin, C. Oh, R. J. Fox, K. E. Sakaie, M. J. Lowe, S.-H. Oh, S. Straub, S.-G. Kim, and J. Lee, “In-vivo high-resolution  $\chi$ -separation at 7T”, *NeuroImage* (2025)
- M. Kim, S. Ji, **J. Kim**, K. Min, H. Jeong, J. Youn, T. Kim, J. Jang, B. Bilgic, H.-G. Shin, and J. Lee, “ $\chi$ -sepnet: Deep neural network for magnetic susceptibility source separation”, *Human Brain Mapping* (2025)
- D. Shin, Y. Kim, C. Oh, H. An, J. Park, **J. Kim**, and J. Lee, “Deep Reinforcement Learning-Designed Radiofrequency waveform in MRI,” *Nature Machine Intelligence* (2021)

## UNDER REVIEW

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- **J. Kim**, H. Jeong, T. Kim, E. Jeong, J. Jang, Y. Choi, and J. Lee, “Longitudinal QSM: Enhancing Consistency of Multiple Time Point Susceptibility Maps via Simultaneous Reconstruction”, *submitted to IEEE Transactions on Medical Imaging*.
- E. Zhang, Y. Mori, **J. Kim**, J. Lee, and T. Hanakawa, “Paramagnetic and Diamagnetic MRI Markers of Cognitive Decline in Aged Population explored at 7T”, *submitted to Experimental Gerontology*.

## CONFERENCES

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### ORAL

- **J. Kim**, H. Jeong, T. Kim, Y. Choi, and J. Lee, “Simultaneous reconstruction of longitudinal QSM data (Longitudinal-QSM)”, 2026 ISMRM Annual Meeting & Exhibition

- **J. Kim** and J. Lee, “DeepRF-Grad: Simultaneous Design of RF Pulse and Slice Selective Gradient Using Reinforcement Learning”, 2021 International Congress on MRI & Annual Scientific Meeting of KSMRM

## POSTER

- **J. Kim**, C. Oh, A.-M. Oros-Peusquens, N. J. Shah, C.-H. Shon, H. Song, and J. Lee, “Visualization of in-vivo brainstem myeloarchitecture via  $\chi$ -separation at 7T.”, 2025 ISMRM Annual Meeting & Exhibition
- **J. Kim**, H.-G. Shin, M. Kim, S. Ji, K. Min, H. Jeong, S.-G. Kim, and J. Lee, “In-vivo high-resolution  $\chi$ -separation (chi-separation) at 7T”, 2024 ISMRM Annual Meeting & Exhibition
- **J. Kim** and J. Lee, “Simultaneous Multislice Pulse Optimization Using DeepRF”, 2023 International Congress on MRI & Annual Scientific Meeting of KSMRM
- **J. Kim**, H.-G. Shin, S. Ji, H. Jeong, H. An, C.-H. Sohn, S. Han, H. Song, J.-H. Chae, S.-J. Choi, J.-J. Sung, and J. Lee, “A feasibility study of susceptibility source separation via chi-separation in amyotrophic lateral sclerosis patients at 7T”, 2023 ISMRM Annual Meeting & Exhibition
- **J. Kim**, H. An, C. Oh, B. Bilgic, and J. Lee, “DeepRF for simultaneous multislice pulses”, 2023 ISMRM Annual Meeting & Exhibition
- **J. Kim** and J. Lee, “Accelerated DeepRF using optimal control”, 2022 International Congress on MRI & Annual Scientific Meeting of KSMRM
- **J. Kim**, D. Shin, H. An, H. Jeong, M. Kim, and J. Lee, “Accelerated DeepRF using modified optimal control”, 2022 ISMRM Annual Meeting & Exhibition
- **J. Kim**, D. Shin, J. Park, H. Jeong, and J. Lee, “DeepRF-Grad: Simultaneous design of RF pulse and slice selective gradient using self-learning machine.” 2021 ISMRM Annual Meeting & Exhibition

## TEACHING EXPERIENCES

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- Teaching Assistant, Bioelectrical Information Engineering (undergraduate course), Fall semester, 2023, Seoul National University, Korea
- Teaching Assistant, Signals and Systems (undergraduate course), Spring semester, 2021, Seoul National University, Korea
- Teaching Assistant, Topics in Communications (graduate course), Spring semester, 2020, Seoul National University, Korea

## PROFESSIONAL EXPERIENCES

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- 2025 ISMRM Workshop on 40 Years of Diffusion, 16-20 February 2025, Kyoto, Japan
- 2024 OHBM Annual Meeting, 23-27 June 2024, Seoul, South Korea
- 2024 ISMRM & ISMRT Annual Meeting & Exhibition, 04-09 May 2024, Singapore
- 2023 ISMRM & ISMRT Annual Meeting & Exhibition, 03-08 June 2023, Toronto, Canada
- 2022 Joint Workshop on MR Phase, Magnetic Susceptibility and Electrical Properties Mapping, 16-19 October 2022, Lucca, Italy
- 2022 ISMRM & ISMRT Annual Meeting & Exhibition, 07-12 May 2022, London, UK.  
- *Moderator*, Oral Session: RF Pulse Design, Parallel Transmission & B1 Shimming
- 2021 ISMRM & SMRT Annual Meeting & Exhibition, 15-20 May 2021
- 2020 ISMRM & SMRT Virtual Conference & Exhibition, 08-14 August 2020