

Kyung Yun Lee

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RESEARCH INTERESTS

The goal of my PhD is to explore and develop ways to apply Bayesian methods to real-world estimation problems in the context of augmented reality applications.

EDUCATION

- **Aalto University** Espoo, Finland
PhD in School of Electrical Engineering Sept. 2023 - Aug. 2027
Acoustics Lab, Department of Information and Communications Engineering
- **Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, S.Korea
Master of Science in Graduate School of Culture and Technology Sept. 2018 - Aug. 2021
Music and Audio Computing Lab
- **Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, S.Korea
Bachelor of Science in Computer Science, minor in Industrial Design Sept. 2011 - Aug. 2018

WORK EXPERIENCE

- **Gaudio Lab** Seoul, S.Korea
AI/Audio research scientist Mar 2022 - July 2023
 - **Blind RIR estimation:** Developing a dynamic room impulse response estimation system for real-time applications
- **Weverse Company, HYBE** Seoul, S.Korea
Data Engineer July 2021 - Mar 2022
 - **Real-time log pipeline:** Refactored and migrated the existing streaming and batch pipeline from Hive to delta format tables. Handling and monitoring large traffic data from artists and fans.
- **Deezer** Paris, France
Research intern Apr - Sept 2019
- **Naver Corp.** Seongnam, S.Korea
Research intern Jun - July 2018

SELECTED PUBLICATIONS

- **AnyRIR: Robust Non-intrusive Room Impulse Response Estimation in the Wild**
Kyung Yun Lee, Nils Meyer-Kahlen, Karolina Prawda, Vesa Välimäki, Sebastian J. Schlecht
Submitted to ICASSP 2026
- **Evaluating Reverberation Models for Augmented Reality**
Kyung Yun Lee, Nils Meyer-Kahlen, Sebastian J. Schlecht, Vesa Välimäki
Journal of Audio Engineering Society, vol. 73, Oct. 2025
- **Fade-in Reverberation in Multi-room Environments Using the Common-Slope Model**
Kyung Yun Lee, Nils Meyer-Kahlen, Georg Götz, Peter U. Svensson, Sebastian J. Schlecht, Vesa Välimäki
AES International Conference on Audio for Virtual and Augmented Reality 2024
- **A Multi-room Transition Dataset for Blind Estimation of Energy Decay**
Philipp Götz, Georg Götz, Nils Meyer-Kahlen, Kyung Yun Lee, Karolina Prawda, Emanuel AP Habets, Sebastian J Schlecht
The 18th International Workshop on Acoustic Signal Enhancement (IWAENC) 2024
- **Room Impulse Response Estimation in a Multiple Source Environment**
Kyung Yun Lee, Jeonghun Seo, Keunwoo Choi, Sangmoon Lee, Ben Sangbae Chon
AES International Conference on Spatial and Immersive Audio 2023

- **PocketVAE: A Two-step model for Groove Generation and Control**
Kyung Yun Lee, Wonil Kim, Juhan Nam
Arxiv 2021
- **Learning a Joint Embedding Space of Monophonic and Mixed Music Signals for Singing Voice**
Kyung Yun Lee, Juhan Nam
Proceeding of 20th International Society of Music Information Retrieval (ISMIR) Conference, Delft, Netherlands, 2019
- **Deep Content-User Embedding Model for Music Recommendation**
Jongpil Lee, **Kyung Yun Lee**, Jiyoung Park, Jangyeon Park, Juhan Nam
Arxiv 2018
- **Revisiting Singing Voice Detection: A Qualitative Review and the Future Outlook**
Kyung Yun Lee, Keunwoo Choi, Juhan Nam
Proceeding of 19th International Society of Music Information Retrieval (ISMIR) Conference, Paris, France, 2018
- **Music Galaxy Hitchhiker : 3D Web Music Navigation through Audio Space**
Dongwoo Suh, **Kyungyun Lee**, Jongpil Lee, Jiyoung Park, Juhan Nam
Late-Breaking/Demo session of 18th International Society of Music Information Retrieval (ISMIR) Conference, Suzhou, China, 2017

AWARDS & ACTIVITIES

- **2020 WiMIR (Women in ISMIR) editorial team**
- **PyCascades 2019 Talk**
Talk title: “So tell me, what is your musical taste?”
- **KAIST Undergraduate Research Project Excellence Award 2017**
Dongwoo Suh, **Kyungyun Lee**
Music Retrieval and Recommendation System Using Music Auto-Tagging
- **IDEA Award 2015: Bronze medal**
Sangmin Bae, Jonguk Im, **Kyungyun Lee**, Juhyeon Park and Subin Choi
Roll-Di: Roll Screen Curtain Direction Indicator

TEACHING EXPERIENCE

- **Teaching Assistant, Aalto University** Winter/Spring 2025
ELEC-E5620 Audio Signal Processing