

# Kyung Yun Lee

<https://kyungyunlee.github.io>

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## EDUCATION

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- **Aalto University** Espoo, Finland  
*PhD in School of Electrical Engineering* *Sept. 2023 -*  
Acoustics Lab, Department of Information and Communications Engineering  
Advised by Vesa Välimäki and Sebastian Schlecht.
- **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  
Advised by Juhan Nam
- **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*
- **University of Cincinnati** Cincinnati, Ohio  
*Exchange program at the College of Design, Architecture, Art, and Planning (DAAP)* *Sept. 2015 - Dec. 2015*

## EXPERIENCE

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- **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, such as BTS.
- **Deezer** Paris, France  
*Research intern* *April 2019 - Sept 2019*
  - **Research topic:** Weakly-supervised instrument detection
- **Naver Corp.** Seongnam, S.Korea  
*Research intern* *Summer 2018*
  - **Research topic:** Learning latent features for identifying instrument sounds using variational autoencoders.
- **Ecco Design Inc.** NYC, New York  
*UX/UI intern* *Jan 2016 - April 2016*
  - Participated in ideation, user research, mockups for startups and LG electronics.

## PUBLICATIONS

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- **Room Impulse Response Estimation in a Multiple Source Environment**  
*Kyungyun Lee, Jeonghun Seo, Keunwoo Choi, Sangmoon Lee, Ben Sangbae Chon*  
AES International Conference on Spatial and Immersive Audio 2023
- **Ethics of singing voice synthesis: Perceptions of users and developers**  
*Kyungyun Lee, Gladys Hitt, Emily Terada, Jinha Lee*  
Proceeding of 23rd International Society of Music Information Retrieval (ISMIR) Conference, Bengaluru, India, 2022
- **PocketVAE: A Two-step model for Groove Generation and Control**  
*Kyungyun Lee, Wonil Kim, Juhan Nam*  
Arxiv 2021

- **Learning a Joint Embedding Space of Monophonic and Mixed Music Signals for Singing Voice**  
*Kyungyun 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, Kyungyun Lee, Jiyoung Park, Jangyeon Park, Juhan Nam*  
Arxiv 2018
- **Revisiting Singing Voice Detection: A Qualitative Review and the Future Outlook**  
*Kyungyun 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

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- **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, Juhyeong Park and Subin Choi*  
Roll-Di: Roll Screen Curtain Direction Indicator