

SEOKBEOM PARK

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Daejeon, South Korea

EDUCATION

Ph.D. Candidate <i>Graduate School of Culture Technology</i> Music and Brain Lab Korea Advanced Institute of Science and Technology (KAIST)	September 2021 – Present Daejeon, South Korea
Master of Science <i>Graduate School of Culture Technology</i> Music and Brain Lab Korea Advanced Institute of Science and Technology (KAIST)	September 2019 – August 2021 Daejeon, South Korea
Bachelor of Science <i>Bio and Brain Engineering</i> Korea Advanced Institute of Science and Technology (KAIST)	March 2013 – February 2019 Daejeon, South Korea

PROJECTS AND RESEARCH

X-Space (UNIVER:US) : A live lab performance with Daejeon Arts Center. <ul style="list-style-type: none">Developed a real-time system that calculate inter-brain synchronization values and frequency band power from multiple EEG devices, integrating the processed data into TouchDesigner for real-time visual art.	2024 <i>link 1, link 2</i>
Neural Index to Evaluate Subjective Music Listening Experiences : Part of a lab project which develop electro-physiological index to evaluate musical flow funded by National Research Foundation. <ul style="list-style-type: none">Fans of Bach, Lim Young-woong, and NCT 127 were recruited, and behavioral and EEG data were collected as they listened to songs by these artists.Analysis: inter-subject correlation (ISC) and stimulus-response correlation (SRC).Some results have been presented at ISMIR 2024 as an accepted paper.	2023 – Present
Groove : Pleasurable urge to move our body to the music. <ul style="list-style-type: none">[Master Thesis] Effects of microtiming deviations between two instruments on the groove experience.Neural mechanisms underlying the groove experience.	2020 – Present
Game Design Guide for Adults in Their 50s and Older : This guide presents important considerations when developing games for players in their 50s and older. It is based on insights from game workshops and experiments related to cognitive motor skills for players in thier 50s and older, as well as participant feedback from playing various genres of mobile games. The project was funded by the Korea Ministry of Culture, Sports and Tourism. <ul style="list-style-type: none">Cognitive abilities required in games and their profiles in middle-aged group.Research on the effects of games on cognitive ability.Validation of difficulty adjustment technique on mobile game through EEG.	2019–2021 <i>link</i>

PUBLICATIONS

Enhancing Predictive Models of Music Familiarity with EEG: Insights from Fans and Non-fans of K-pop Group NCT127 25th International Society for Music Information Retrieval (ISMIR)	November 2024 San Francisco, California
The Effect of Inter-instrument Interaction of Microtiming Deviations on the Groove Experience [In Submission]	
A Review of Cognitive Studies of Groove Music Theory Forum	December 2020

CONFERENCES AND PRESENTATIONS

[Poster] Correlations between Music Listening Experiences and EEG Responses 67th Korea Society for Music Perception and Cognition (KSMPC)	March 2024 Seoul, South Korea
[Poster] Definition of Groove: A Survey Study 66th Korea Society for Music Perception and Cognition (KSMPC)	February 2023 Seoul, South Korea
[Oral Presentation] Musical Factors that Influences the Cognition of Groove 65th Korea Society for Music Perception and Cognition (KSMPC)	November 2021 Virtual
[Oral Presentation] Effects of Microtiming Deviations between Two Instruments on the Groove Experience 16th International Conference on Music Perception and Cognition (ICMPC)	July 2021 Virtual
[Poster] Influence of Microtiming Deviations between Rhythm Layers on the Groove Experience 64th Korea Society for Music Perception and Cognition (KSMPC)	November 2020 Virtual

TEACHING ACTIVITY

TA, [GCT731] Topics in Music Technology <Spatial Audio Recording and Reproduction for Immersive Auditory Graduate School of Culture Technology, KAIST	2023 Fall Daejeon, South Korea
TA, [GCT536] Cognitive Science of Music Graduate School of Culture Technology, KAIST	2023 Spring Daejeon, South Korea
TA, [GCT576] Social Computing Graduate School of Culture Technology, KAIST	2022 Fall Daejeon, South Korea
TA, [GCT536] Cognitive Science of Music Graduate School of Culture Technology, KAIST	2022 Spring Daejeon, South Korea
TA, [GCT742] Topics in Game <Innovative Game Design Project> Graduate School of Culture Technology, KAIST	2020 Fall Daejeon, South Korea
TA, [GCT731] Topics in Music Technology <Cognitive Science of Music> Graduate School of Culture Technology, KAIST	2020 Spring Daejeon, South Korea

SKILLS

Programming: Python, MATLAB
EEG: Compumedics Neuroscan, Cognionics, Emotiv, EEGLAB plugin, MNE library
Statistical Tools: SPSS, R
Experiment: CURRY 8, STIM2, PsychoPy, E-Prime, OpenSesame
Other: Guitarist (Blues, Jazz, ...), Ableton Live

FUNDING OF RESEARCH PROJECTS

AI-Acoustics-Cognitive Science Convergence Lab for Streaming Content Creation and Immersive User Experience Funding: National Research Foundation of Korea (NRF)	2023 – 2025
Development of Electrophysiological Index for Evaluation of Musical Flow and its Application to Virtual Reality Funding: National Research Foundation of Korea (NRF)	2023 – 2025
Musicking in the age of Post-AI Funding: Korea Advanced Institute of Science and Technology (KAIST)	2021–2023
Toward Naturalistic and Attractive Sound in AI: Acoustics and Cognitive Approaches Funding: KT Corporation	2022

Development of Senior Game Play Supporting Technology and Game Service Model

2019-2021

Funding: Ministry of Culture, Sports and Tourism