

# Minsik Choi

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## Education

### Australian National University

Ph.D. Computer Science

Mar 2023 - Current

- Creativity Support Tool Development for Sonic Interaction Practitioners in HCI Research
- Sound, Music, and Creative Computing Lab, Supervised by Dr. Charles Patrick Martin

### Seoul National University

M.S. Industrial Engineering

Mar 2021 - Feb 2023

- Subjective Evaluation for In-Vehicle Virtual Sound in Human Factors Research
- Center for Human Interface Systems, Supervised by Dr. Myung Hwan Yun

### Seoul National University

B.M. Musicology and Music Theory

Mar 2013 - Feb 2020

- Ethnomusicology Focus, Cum Laude, Supervised by Dr. Eungi Min

### Sunhwa Arts High School

Clarinet Performance Major

Mar 2010 - Feb 2013

- Student President and Academic Excellence Awards

## Publications

### JOURNAL ARTICLES

Human-centered Design in Acoustics Education for Undergraduate Music Majors

Minsik Choi, Max Kapur

*The Journal of the Acoustical Society of America* (2022). Acoustical Society of America, 2022

Design and Evaluation of Electric Vehicle Sound Using Granular Synthesis

May Jorella Lazaro, Sungho Kim, Minsik Choi, Kichang Kim, Dongchul Park, Soyoun Moon, Myung Hwan Yun

*The Journal of the Audio Engineering Society* (2022). Audio Engineering Society, 2022

### CONFERENCE PROCEEDINGS

Scenario-Based Design to Envision How GenAI Can Support Sound Design Practices

Minsik Choi, Josh Andres, Alexander Hunter, Charles Patrick Martin

*Proceedings of the 36th Australian Computer-Human Interaction Conference*, 2024, Brisbane, Australia

Tonal Cognition in Sonification: Exploring the Needs of Practitioners in Sonic Interaction Design

Minsik Choi, Josh Andres, Charles Patrick Martin

*Proceedings of the 19th International Audio Mostly Conference: Explorations in Sonic Cultures*, 2024, Milan, Italy

Subjective Perception based on Acoustical Parameters for In-Vehicle Virtual Sound

Minsik Choi, Woonchul Jung, Sungho Kim, May Jorella Lazaro, Jeonghwan Lee, Soyoun Moon, Myung Hwan Yun

*AES International Conference on Automotive Audio*, 2024, Göteborg, Sweden

Music Theoretical Approach to Auditory Interface Design: Progressive, Explainable, and Accessible

Minsik Choi

*Proceedings of the 15th Conference on Creativity and Cognition*, 2023

Factors Affecting Interior Acceleration Sound Preference for Electric Vehicles: a Path Analysis

May Jorella Lazaro, Sungho Kim, Adriance Wilfred Anggang, Minsik Choi, Myung Hwan Yun

*Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 2022

## Work Experience

### PhD Student Researcher

Sound, Music, and Creative Computing Lab

Mar 2023 - Current

- Sonic interaction design tool development leveraging tonal music principles and GenAI for practitioners
- Qualitative analysis (interview, focus group, thematic analysis), statistical analysis (R, Python), prototyping (JS, Figma, APIs)

### Master's Student Researcher

Center for Human Interface Systems

Mar 2021 - Feb 2023

- User Evaluation on In-vehicle Virtual Sound with Harman International; an in-vehicle experiment with 30 musicians
- Industry projects involving experiments (design, execution) and statistical methods (descriptive, inferential)

Academic Tutor (course teaching)

Australian National University

July 2023 - Current

- Art and Interaction Computing; artistic ideation and code implementation using p5.js (S2, 2023)
- Human-Computer Interaction; Introduction to HCI covering core concepts and methods (S2, 2023), (S2, 2024)

Teaching Assistant

Seoul National University

Sep 2019 - Dec 2021

- Human Factors; introduction to human factors involving core theories and methods (S2, 2021)
- Human Interface Design; design process for research, relevant user study methods, and interface design (S1, 2021)
- History of Western Classical Music 2; classical music history in classic and romantic periods (S2, 2019)

Naver Music Lesson Project Manager

Korea Educational Broadcasting System [click]

Jan 2021 - Jun 2022

- Classical Music Content Manager; designed and filmed 300 music lessons posted on Naver

Internships

Start-up Experiences

Apr 2020 - Aug 2020

- Aily; machine learning solution global business development in Southeast Asian countries
- Global Outliers; establishing the initial direction of a social networking service business

Military Service

Republic of Korea Army

Dec 2017 - Aug 2019

- Administrative work for educational purposes and combat driving

Projects

PhD Projects

Sound, Music, and Creative Computing Lab [click]

Mar 2023 - Current

- Framework Design with GenAI; a musical tension and release framework for sonic interaction designers
- Prototyping with GenAI; scenario-based design to envision how GenAI can support sound design practices
- Needs Finding User study; Tonal cognition in sonification: exploring the needs of practitioners in sonic interaction design
- Systematic Literature Review; musical perspectives on sonification: a systematic literature review
- Overall Research Plan; music theoretical approach to auditory interface design

Industry Projects

Human Interface Systems Lab

Sep 2021 - Jan 2023

- Subjective Evaluation on In-vehicle Virtual Sound, *Harman International*
- Infectious Disease Prevention in Vehicle Contexts, *Hyundai Motors*
- Electric Vehicle Charging Experience, *Pluglink*
- Auditory Display Usability Tests for Electric Vehicles, *Hyundai MOBIS*
- Usability Evaluation Tool for Virtual Engine Sound, *Hyundai Motors*
- Galvanic Vestibular Stimulation Device development for Pilots, *Republic of Korea Air Force*

Undergraduate Research

Liberal Education, Seoul National University

Sep 2016 - Dec 2016

- Ethnography; A Study on Cheering Culture at Korea University, Dr. Hilary Finchum-Sung

Clarinet Performance

Composition Presentations and Concert Performances

2013 - 2024

- ANU Orchestra Concert, Australian National University, 2024
- Paris - Unwise Prince, Sungshin Women’ s University, 2022
- Reflection for 3 Clarinets in B flat, Ehwa Womans University, 2017
- The Last Resort, Hanyang University, 2016
- Chamber Music Night, Ewon Art Hall, 2013
- Root Woodwind Quintet Recital, Yonsei University, 2013

Achievements

2023-26

PhD Scholarship, Stipend for 3.5 years, travel and removal allowances

ANU

2023-26

Fee Remission Merit Scholarship, Doctoral program full tuition fee waiver

ANU

2021-22

Scholarship for Next Academic Generation, Master’s program full tuition fee waiver

SNU

2017

Undergraduate Independent Research Award, Research grant and Encouragement award

SNU