

# Minsik Choi

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## Education

### Australian National University

Ph.D. Computer Science

Mar 2023 - Current

- AI-Assisted Creativity Support Tool for Sonic Interaction Design with Musical Tension and Release
- Sound, Music, and Creative Computing Lab, Supervised by Dr. Charles Patrick Martin

### Seoul National University

M.S. Industrial Engineering

Mar 2021 - Feb 2023

- Validation and Preference User Test of In-Vehicle Virtual Sound
- Center for Human Interface Systems, Supervised by Dr. Myung Hwan Yun

### Seoul National University

B.M. Musicology and Music Theory

Mar 2013 - Feb 2020

- Historical Interpretation of Clarinet Repertoire and Ethnomusicology, Cum Laude, Supervised by Dr. Eungi Min

### Sunhwa Arts High School

Clarinet Performance

Mar 2010 - Feb 2013

- Student President and Academic Excellence Awards

## Publications

### CONFERENCE PROCEEDINGS

A Musical Tension and Release Framework for Sonic Interaction Designers

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

*Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*, 2025, Yokohama, Japan

GenAICHI 2025: Generative AI and HCI at CHI 2025

Michael Muller, Lydia B Chilton, Mary Lou Maher, Charles Patrick Martin, Minsik Choi, Greg Walsh, Anna Kantosalo

*Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*, 2025, Yokohama, Japan

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, Woochul 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

### 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

## Work Experience

### PhD Student Researcher

Sound, Music, and Creative Computing Lab

Mar 2023 - Current

- Sonic interaction design tool development using tonal music principles with GenAI applications for practitioners
- Prototyping in Python, JS, React, p5.js, Tonal & Tone.js, GenAI APIs, and Figma, with user testing and thematic & statistical analysis

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 experiment design & execution, with descriptive and inferential statistical analysis

Academic Tutor (course teaching)

Australian National University

July 2023 - Current

- Human-Computer Interaction; introduction to HCI covering core concepts and methods (S2 - 2023, 2024, 2025)
- Sound and Music Computing; introduction to computer music using pure data and strudel (S1 - 2025)
- Art and Interaction Computing; visual ideation and code implementation using p5.js (S2 - 2023)

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; western classical music of the classic and romantic periods (S2 - 2019)

Naver Music Lesson Project Manager

Korea Educational Broadcasting System [\[click\]](#)

Jan 2021 - Jun 2022

- Classical music education content manager; designed and filmed 300 music lessons posted on Naver

Internships

Start-up Experiences

Apr 2020 - Aug 2020

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

Projects

PhD Projects

Sound, Music, and Creative Computing Lab [\[click\]](#)

Mar 2023 - Current

- Tool development and evaluation; CadenceFlow: Creating Sonic Interactions through Musical Tension and Release
- 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*
- 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 Projects

SNU and Korean Provincial Government

Sep 2016 - Dec 2016

- An ethnographic study on cheering culture of Korea University, Dr. Hilary Finchum-Sung
- An interpretation of clarinet repertoire from a performance perspective, Dr. Eungi Min
- Silk Road cultural project exploring 10 ports in 9 countries as a musician, Gyeongsangbuk-do

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	<b>PhD Scholarship</b> , Stipend for 3.5 years, travel and removal allowances	ANU
2023-26	<b>Fee Remission Merit Scholarship</b> , Doctoral program full tuition fee waiver	ANU
2021-22	<b>Scholarship for Next Academic Generation</b> , Master’s program full tuition fee waiver	SNU
2017	<b>Undergraduate Independent Research Award</b> , Research grant and Encouragement award	SNU