Jongik Jeon

Sonic Interaction Designer & Researcher

helloiamjongik@vt.edu · personal website

RESEARCH KEYWORDS

Human-Computer Interaction (HCI); Sonic Interaction Design; Human Factors; Automotive UX

EDUCATION

Virginia Tech, Virginia, USA

***PhD**, Industrial and systems engineering* *Aug 2026 -*

Mind Music Machine Lab (advised by Myounghoon Philart Jeon)

KAIST, Daejeon, South Korea

***MSc**, Industrial design / Advisor: Chang Hee Lee* *Sep 2024 - Jul 2026*

Affective Systems and Cognition Lab (advised by Chang Hee Lee)

BSc**, Industrial design **(Outstanding graduate award) *Feb 2017 - Feb 2024*

REPRESENTATIVE PROJECTS

Cartabile: Real-time continuous musification of fully autonomous driving context *(ongoing)*

Continuous and non-intrusive music-based sonification for Level 5 fully autonomous vehicles

- *Developed a responsive auditory display translating driving contexts to ambient electronic music using SuperCollider and Python*
- *Conducting a within-subject driving simulator study with 24 users, quantitatively evaluating auditory experience, situational awareness, trust in automation, and non-driving related task interference*

Sonic Being: Imagining sound as an independent entity *(2025)*

Reimagining sound as an independent entity that persists on its own beyond our perception

- *Built software/hardware integrated sound systems using Raspberry Pi and developed a real-time sound synthesis algorithm using Python*
- *Designed participatory workshops and a 7-day home deployment study with 12 users and conducted thematic analysis for qualitative data from diary studies and interviews using ATLAS.ti*

Sprayable Sound: Exploring the Experiential and Design Potential of Physically Spraying Sound Interaction *(2023-24)*

Sonic interaction design where users can physically spray sound into the surrounding space

- *Designed a physical sprayable sound system using MCU and conductivity-sensing circuits, integrated with a GPS-tracking application and BLE communication*
- *Conducted field user studies and collaborative ideation workshops using brainwriting with 23 participants, performing inductive thematic analysis on qualitative interview transcripts and concept sketches*

SELECTED PUBLICATIONS

Sonic Being: Imagining sound as an independent entity

***Jongik Jeon**, Yoonji Lee, Chang Hee Lee*

***DIS 2026** (ACM Conference on Designing Interactive Systems)*

Sprayable Sound: Exploring the Experiential and Design Potential of Physically Spraying Sound Interaction

***Jongik Jeon**, Chang Hee Lee*

***CHI 2025** (ACM Conference on Human Factors in Computing Systems)*

Silent Suspense: Multimodal Haptics for Horror Film Experiences for Deaf and Hard-of-Hearing (DHH) Audiences

Yoonji Lee, ***Jongik Jeon***, Byoungjae Kim*, Gurim Kim, Geumjin Lee, Chang Hee Lee (*equally contributed)*

***UIST 2025 poster** (ACM Symposium on User Interface Software and Technology)*

AWARDS AND HONORS

Virginia Tech Alexander Walter Scholarship *Aug 2026*

KAIST President's Special Award *Nov 2023*

KAIST Outstanding Graduate Award in Industrial Design *Dec 2022*

SKILLS

Fabrication

Hardware prototyping and integration (Fusion 360); Embedded systems (Arduino, Bluno, Raspberry Pi); Circuit design; 3D modeling and printing; Laser cutting; Graphical design (Figma, Illustrator)

Programming

Python; Javascript; SuperCollider; C# (Unity); HTML/CSS; Processing; Max MSP

Qualitative research

Participatory design; Interview; Focus group interviews; Thematic analysis; Field deployment study

Music

Instruments (Guitar, Piano, Bass, Harmonica); DAWs (Logic Pro, FL Studio); Electronic sound synthesis; Jazz harmony; Improvisation; Songwriting

RELATED EXPERIENCE

Exhibiting Artist

National Science Museum (Daejeon, South Korea) *May 2026*

In Transition: Programmable Designs (Seoul, South Korea) *Dec 2025*

Gwangju Design Biennale: You, the World (Gwangju, South Korea) *Aug 2025*

Inventive Minds and Ideas: Living in the Future (Seoul, South Korea) *Dec 2022*

Academic Reviewer (* for special recognition for outstanding reviewer)

*IJHCS; CHI '27, '26 *; HRI '27; TEI '26, '27; IASDR '25; DIS '25*

Military Service

Marine Artillery, Republic of Korea 1st Marine Division *Jul 2020 - Jan 2022*

LANGUAGE

English *(Fluent)*; **Japanese** *(Intermediate)*; **Korean** *(Native)*