Dongwoo Kim

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Website

Education

2020.03–2026.08 **Gwangju Institute of Science and Technology (GIST)**
B.S. in Electrical Engineering and Computer Science / Minor in Artificial Intelligence

2022.01–2022.05 **University of California, Berkeley**
Berkeley Global Access Program

2021.06–2021.08 **Boston University**
Summer Exchange Program

2017.03–2020.02 **Hankuk Academy of Foreign Studies (HAFS)**
Natural Sciences Track

Publications

2026 **Prismix: Navigating Interpretive Ambiguity in Novice Sound Exploration for Music Mixing**
Dongwoo Kim, Kangbeen Ko, Jeongseok Oh, and SeungJun Kim.
Under review

2026 **PardonMix: Unpacking Ambiguity in Semantic Audio Mixing for Adaptive Interface Design**
Dongwoo Kim, Kangbeen Ko, Jeongseok Oh, and SeungJun Kim.
Proceedings of the Extended Abstracts of the 2026 CHI Conference on Human Factors in Computing Systems (CHI EA '26), Article 505, pp. 1-6.

2026 **HappyDrawing: A Tablet-Based Drawing System for Children with Developmental Disabilities**
Dongwoo Kim, Kangbeen Ko, Won Kim, Jiwon Park, Chami Jeong, and SeungJun Kim.
Proceedings of HCI Korea 2026, pp. 122-128.

2024 **Deep Learning for Overseeing Indo-Pacific Bottlenose Dolphin Tourism Law Enforcement**
Dongwoo Kim, Woohyun Jeon, Jiyoung Lee, Myeonghun Lim, Hyemin Park, Sunghun Yang, Junhyung Kang, Haneol Lee, Jongsu Choi, Dongki Chung, Mi Yeon Kim, Soojin Jang, and Seowoo Han.
IEEE CAI Workshop on AI for Environmental Intelligence: The Past, The Present, and The Future.

Research Experience

2025.09–2026.09 **Human-Centered Intelligent Systems (HCIS) Lab, GIST**
Undergraduate Research Intern
Led PardonMix and Prismix research on semantic audio mixing, including study design, expert data collection, interface development, and quantitative and qualitative analysis.

2023.07–2024.12 **Drone Video Analysis Lab, MODULABS**
AI Engineer / Nonprofit Research Project
Co-developed a YOLOv8-based dolphin and vessel detection pipeline, contributed synthetic augmentation for scarce dolphin data, and synthesized the team's experiments into a first-author workshop paper.

2023.01–2023.02 **CJ OliveNetworks / AI Laboratory**
AI Laboratory Intern
Tokenized MIDI data using REMI and fine-tuned a GPT-2-based music generation model for use in music production.

Professional Experience

2024–2026.04 **TRAX / Music Collaboration Platform**
Co-founder & Developer / Co-founded and launched a music collaboration platform in early 2025.
Selected for the 2025 Pre-startup Package (KISED).
Early product development, mentor recruitment and service support. First-cohort survey satisfaction: 4.81/5 (16 responses).

2022.07–2022.08 **Supercoder**
Marketing Intern / Built an internal dashboard to view Excel-based data summaries in one place

Awards

2026 **Outstanding Undergraduate Thesis Award** / GIST

2026 **GIST AX Challenge - Track 2: HAI Experience Design** / Excellence Award / ARTEMIS

2026 **GIST AX Challenge - Track 3: AI Research** / Excellence Award

2025 **Dean's List** / GIST

2024 **K-ium Medical AI Competition** / Excellence Prize

2023 **Fame RAP Season 1** / Grand Prize / Minister of Science and ICT Award

Projects

2026–ongoing **ResLink AI**
User research and full-stack development
Surveyed 67 emergency responders and interviewed a university hospital director. Built a voice-to-record prototype with evidence review.

2026.07–08 **ARTEMIS**
Advanced virtual Reality-based Training for Externalizing Multimodal Internal States
Built a VR archery training system integrating pose estimation, Polar H10 biosignals, instrumented bow input, and real-time communication with Unity.

2025 **LeafSync**
Team Lead & App Developer / Built a sensor-driven smart planter where users interact with a personified plant chatbot, with automated rotation and drainage.

2025 **Plotty AI**
A children's storytelling prototype built with Froebel story materials. Analyzed narrative turning points and connected a Flutter app to an LLM that generates alternative story branches.
Received a commendation from Froebel.

Activities

2026.07–2026.08 **GIST AI Ambassador**
Developed educational materials for high-school students and taught a hands-on 3D reconstruction workshop using COLMAP.

2021.08–2022.08 **GDSC GIST**
Core Team Member / Community outreach & GitHub tutorials

2020.03–2021.11 **Science Performer**
Wrote lyrics and performed in science outreach shows, approximately 5-6 performances a year

Skills

Development Python, Dart, TypeScript/JavaScript, Flutter, React, FastAPI, Firebase
AI & Data YOLOv8, OpenCV, PyTorch, JASP
Audio Cubase, Ableton Live
Languages Korean (native), English (professional working proficiency)