

Junichi Shimizu

Creative AI Engineer & Researcher

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PROFILE

Product-minded researcher and engineer with 9+ years in Sony R&D, specializing in generative music, Human-Computer Interaction, and AI-native creative tools. I take ideas from research and model prototyping through interaction design, full-stack implementation, and public product experiences. My work has also contributed to intellectual property across generative music, context-aware media, gesture interaction, haptics, and shape-changing interfaces.

EXPERIENCE

Sony Group Corporation

2017 - Present

2023 - PRESENT / TOKYO

Development Lead, AI-powered Spatial Creation Tools

Sony Group Corporation

Leading product definition and development for new spatial content creation workflows at the intersection of AI and creative tooling.

- + Owned the path from technical strategy and UX design to TypeScript, Next.js, Python, and PyTorch implementation.
- + Led a five-person engineering team within a broader cross-functional program of approximately 50 people.
- + Managed external partners, delivery risk, quality, budget, and resource planning.

2022 - 2023 / LONDON

Visiting Researcher, Creative Computing Institute

University of the Arts London

Researched human-in-the-loop interfaces for generative music models, connecting applied ML research with tools for live creative practice.

- + Designed and built interactive ML prototypes with TypeScript, React, Python, AWS, and PyTorch.
- + Presented Interactive Machine Learning for Generative Models at a NeurIPS 2023 workshop.
- + Presented Genny, a generative-model live coding interface, at ICLC 2023 in Utrecht.
- + Coordinated a six-person research collaboration and contributed to publications and intellectual property.

2021 - 2022 / TOKYO

Development Lead, AI Music Interface

Sony R&D

Led a zero-to-one program for an AI-assisted music creation plug-in, spanning model integration, cloud architecture, product UX, and release delivery.

- + Defined requirements, architecture, and technical choices for an ambiguous new creative-AI product space.
- + Led a five-to-ten-person development team and coordinated external engineering partners.
- + Built across frontend, backend, ML integration, and AWS using TypeScript, Python, React, PyTorch, Django, and FastAPI.

ADDITIONAL EXPERIENCE

2018 - 2026 / TOKYO

Researcher & Engineer, Interactive Music

Sony R&D

Developed experiences in which music responds to human behavior, mobility, and sensor data.

- + Contributed interaction design, software development, and product planning across teams of up to ten engineers.
- + Developed public experimental experiences for Sony Park Mini.
- + Contributed to AFEELA data musification work that turns sensing and urban context into real-time music.

2017 - 2020 / TOKYO

Researcher, Gesture & Wearable Interaction

Sony R&D

Developed gesture recognition and non-contact interaction techniques for headphones and wearable audio products.

- + Worked on gesture interaction and spoken feedback experiences for Xperia Ear Duo.
- + Led research into mmWave-based touchless headphone interaction, including technical direction and partner coordination.

CAPABILITIES

Applied AI Generative models, music AI, interactive ML, PyTorch, TensorFlow	Product engineering TypeScript, Python, React, Next.js, Node.js, FastAPI, Django, AWS
Creative technology JUCE, Max/MSP, Unity, real-time audio, live coding, sensing	Design and leadership Figma, prototyping, product definition, team leadership, partner management

SELECTED RESEARCH AND SPEAKING

2026 / ADC JAPAN	Designing Interactive Machine Learning Tools for Music Generation Models
2023 / NEURIPS WORKSHOP	Interactive Machine Learning for Generative Models
2023 / ICLC	Genny: Designing and Implementing a Live Coding Interface for Generative Models

SELECTED INTELLECTUAL PROPERTY

Selected US patent families / publications, 2021-2026

US20260212846A1	Adaptive music from camera imagery and surrounding objects
US20260112344A1	GUI for a GAN-based music synthesizer
US20240233777A1	Dynamic media parameters based on user context
US20240019935A1 / US12578798B2	Haptic feedback for gripping a virtual object
US20220179613A1 / US12026430B2	Gesture UI with an invisible interaction region
US20220059070A1 / US12067966B2	Continuous synthesized-sound control from device state

EDUCATION

2015 - 2017 Master of Media Design Keio University Graduate School of Media Design	2011 - 2015 B.S. in Electrical Engineering Tokyo University of Science
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