

YASHA JAIN

New Media Artist · Creative Technologist · Developer · [weirdwithcode](#)

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PROFILE

New media artist, creative technologist, and developer working under the moniker weirdwithcode. My practice sits at the intersection of art, technology, and conservation to explore how computational systems shape perception, control, and meaning in digital culture.

Originally from Nagpur, India, I trained first as an engineer and then across science, technology, and policy before moving fully into artistic software development. I have worked as a developer, game developer, and researcher in India, and since 2019 as a software developer and artistic researcher at ZKM | Hertzlab in Karlsruhe, Germany. My work has been shown in galleries, festivals, and experimental spaces internationally. Outside the studio, I play the sitar and hike.

M.S. Energy Science, Technology and Policy 2015 – 2016

Carnegie Mellon University, Pittsburgh, USA

B.Tech. Materials Science and Engineering 2009 – 2013

Visvesvaraya National Institute of Technology (VNIT), Nagpur, India

SKILLS & INTERESTS

Domains: Interactive installation · Generative art · Creative coding · Live coding · Virtual & augmented reality (VR/AR) · Machine learning & AI · Computer vision · Human–computer interaction · Game design & development · Wearable techno-fashion · Graphic & visual design

Tools & engines: Unity · Cinema4D · TouchDesigner · Max/MSP/Jitter · Millumin · openFrameworks · Processing · p5.js · Three.js · Arduino · Raspberry Pi

AI & audio: TensorFlow · Ollama · GPT-Neo · Stable Diffusion · custom vision/classification models · Tidal Cycles · SuperCollider · Hydra · OSC · Web Speech / Web Audio APIs

Languages: Python · JavaScript · C# (Unity)

Beyond the studio: playing the sitar and hiking.

EXPERIENCE

Software Developer & Artistic Researcher — ZKM | Hertzlab

Feb 2019 – Present

ZKM | Center for Art and Media, Karlsruhe, Germany

ZKM | Hertzlab is the ZKM's department for artistic research and development — a space working between artistic research, speculative inquiry, and critical innovation across themes such as lifecycles, connectivity, the beyond-human world, health & wellbeing, and shared futures.

- Develop software and carry out artistic research within the Hertzlab, providing technical and software support to artists and building the systems behind interactive and AI-driven installations.
- Work across a range of media and techniques, currently focused on artificial intelligence and machine learning, real-time and generative graphics, computer vision, game engines, and interactive installation.
- Serve as a team member on the Hertzlab's major research productions, collaborating with a large interdisciplinary team of artists, researchers, curators, and technical staff, and delivering work on-site.
- Author and exhibit a substantial body of independent and collaborative work (detailed in Projects below), from AI installations and generative systems to live-coding performances.

Lead Developer — Quicksand Studio

Jun 2017 – May 2018

India · [quicksand.co.in](#)

- Led game design and development as lead developer at Quicksand, a multidisciplinary design and innovation studio.
- Worked on several social-research projects and installations — including The Last Fisherman of Bombay and the Sangath mental-health app (see Projects).

VR Developer — Dinosaurs in the Wild (Impossible Pictures)

Jan 2017 – May 2017

India · [dinosaursinthewild.com](#)

- Developed the on-site VR software in Unity for a large-scale immersive experience directed by Tim Haines.

Developer, Game Developer & Researcher — various roles

Before 2017

India

- Worked as a developer, game developer, and researcher across a range of projects in India before moving into full-time artistic software development.

PROJECTS, INSTALLATIONS & EXHIBITIONS

[MARS! – Mobilizing Awareness for Resilient Societies!](#) Jun 6 – Sep 13, 2026 · ZKM

Concept exhibition · Lichthof 9 · Hertzlab project team member

A concept exhibition asking what Mars settlement would look like if approached not as a project for the super-rich but as a communal, democratic undertaking — in the end, we travel to Mars in order to save Earth. Scientists and citizen scientists worked together as the “Red Dust Society” across five prototype workshops, discovering that the skills needed to survive on Mars are the same ones needed on a climate-changed Earth. An open, participatory platform inviting visitors to test the prototypes and contribute their own ideas.

- **Habitat.** A resilient living space able to withstand extreme weather, exploring modular, adaptable architectures for Mars and for a climate-stressed Earth.
- **Mental Health.** Strategies and systems addressing isolation and confinement, relevant to astronauts and to people in dense cities or isolated communities alike.
- **Food.** Sustainable food systems working with minimal resources, realised partly as a future banquet tasting alternative proteins from algae to insects.
- **Governance.** Alternative governance models centring democratic participation and resource justice.
- **Resource Management.** Closed-loop recycling systems modelling a circular economy for a resource-scarce world.

Kamuna : Mars Communication Station 2025 · ZKM & HfG Karlsruhe

Team project · Web / Installation · developed by Yasha Jain

A speculative dual-site installation across ZKM | Hertzlab and HfG Karlsruhe's Bio Design Lab that stages a video call between Earth and Mars. Two terminals let visitors talk to a counterpart on the “other planet” with a deliberate multi-second delay echoing real interplanetary latency, making conversation slower, more intentional, and poetic. Rotating interactive “missions” prompt reflection and play; the space loops live NASA rover imagery and real InSight weather data alongside a “Mars Twitter” feed of fictional Martian posts. Includes a companion Martian Fabrication Station — a mannequin in a “Martian saree” of modular 3D-printed units and heat-protective foil — asking how cultural identity and beauty survive where materials are scarce.

Bring Your Own Model (BYOM) 2025

Education · Interactive · local ML interface

A completely offline machine-learning interface that lets users teach models by example and immediately see the system respond — training, evaluating, editing model layers, and deploying without cloud services or surrendering data. Real-time classification streams via OSC for compatibility with Max/MSP, TouchDesigner, SuperCollider, and Unity. BYOM explores how local AI can democratise machine learning and foster transparency and creative freedom for artists, researchers, and educators.

[Electronic Petting Zoo](#) 2025 - 2026

Installation · robotics

An installation of robotic guinea pigs, each given an individual personality, that respond to touch and spoken cues so children can engage emotionally while reflecting on the difference between living and non-living things. Accompanied by a planned research project with Prof. Dr. Kathrin Gerling at the Karlsruhe Institute of Technology (KIT), investigating how kindergarten-aged children distinguish living animals from artificially animated objects.

Animated Drawings (Doodly Do) 2025

Personal project · Generative · ML pipeline

A locally deployed pipeline that captures a visitor's drawing by camera, classifies it as humanoid or animal with a custom ML model, rigs and animates it via Meta's AnimatedDrawings framework, and renders it in a custom Unity environment — all running locally on an NVIDIA GTX 1080 with 8–10-second latency, coordinated over OSC. Positions machine learning as an active collaborator that turns playful human marks into motion and personality. (Earlier version shown at Kamuna, 2023.)

[Interplanetary Texting](#) 2025

Personal project · Web / Concept

A web piece demonstrating how light-speed communication shapes interplanetary messaging: users pick source and destination planets, send messages, and track their journey through the solar system — observing delays and arrivals to grasp planetary distances, orbital dynamics, and the limits of communication across space.

OHL Plants 2025

Residency · Installation · Arduino & TouchDesigner

An installation in which flowers placed in water drive on-screen visuals: touching and holding the plants gradually clarifies a noisy, blurred image, which returns to noise when contact is released. An Arduino detects the changing capacitance of the

flowers and TouchDesigner translates it into real-time visual transformation; visitors are guided to modify the interaction logic in their own code, turning plants into collaborators rather than passive objects.

Terms of Confession 2025

Personal project · Web / Installation

A confessional-booth installation that gives algorithms a “voice” to confess how they shape behaviour, exploit attention, and cause harm — prompting reflection on accountability, consent, and responsibility. Visitors then write responses on physical sticky notes placed on the surrounding walls, building a growing wall of personal, contradictory testimonies that reveals algorithmic harm as cumulative, intimate, and shared. All confessions are pre-recorded and the interaction runs locally, sending no personal data to external servers.

Flatware, Hardware, Software, Wetware May 4 – Nov 24, 2024 · ZKM

Exhibition · Installation · AI system & development by Yasha Jain

An AI-based intervention shown in “(A)I Tell You, You Tell Me. Three Encounters for Humans/Machines” (curated by Philipp Ziegler and Clara Runge), created in-house at ZKM | Hertzlab. Original ZKM Collection works hang beside small Raspberry Pi-powered screens that, instead of fixed labels, display AI-generated interpretations uniquely generated for each visitor. Custom-trained vision models extract semantic features from each artwork, and locally fine-tuned language models (on Ollama, hosted on the Hertzlab AI server) generate a description for one of 16 themes — live and ephemeral per session. The work asks what happens when institutions trusted as custodians of cultural knowledge hand interpretive power to machines, turning viewers into co-authors of meaning.

Meme Me 2024

Personal project · Web

A web project combining machine vision, natural-language generation, and code to co-create memes from people's images with both humour and unsettling accuracy; participants can download their memes or request deletion.

Voice Box 2024

Personal project · Web / Interactive · Web Speech API & Three.js

A speech-to-visual interface that turns the voice into real-time visualisation, exploring voice, visualisation, and interaction.

Berthold Leibinger 2023

Commission · Graphic Design · Stable Diffusion

A commission transforming event invitation cards into a living generative artwork: each card is generated via Stable Diffusion with latent-space interpolation, creating a visual dialogue between cards that poetically interprets quantum duality (wave and particle states) and merges individual contributions into a collective generative experience.

If You Think You Are Sleeping 2023

Personal project · Interactive Video · p5.js & Web Audio API

An interactive video work exploring dreams, consciousness, and time.

Live Coding 2023

Live event · Performance · Tidal Cycles, SuperCollider, Hydra

Live-coding performances making algorithmic music and visuals in real time — code as art performed live, including at the ZKM's Isle of Coding.

Agents (with Ludger Brümmer) Dec 2021 – Aug 2022 · ZKM

Generative · Unity · BioMedia. The Age of Media with Life-like Behavior

An audiovisual installation presenting a living ecosystem of algorithmic “agents,” each with its own sensory framework, behaviours, and social tendencies. A real-time camera system tracks visitors and agents respond individually — some approach, some flee, some evolve when a visitor lingers — rendered with custom shaders and flocking/individual behaviour models in Unity by Yasha Jain, with a multichannel spatial-audio system placing creatures and visitors in real acoustic space. Agents question the nature of intelligence and life, showing how lifelike behaviour emerges from simple rule-based systems. Also shown at the EnBW Group headquarters (2022).

Botcast Dec 2021 – Aug 2022 · ZKM

Team project · Audio / Web · BioMedia

“Botcasts” — bot + podcast — are AI-generated radio broadcasts that scrape and summarise real news (via the newspaper3k module), feed the summaries to a GPT-Neo model to generate fictional news stories, and voice them with Descript into podcast-style broadcasts. The work investigates disinformation, “alternative facts,” and bot-driven media, blurring fact and fiction to question journalism, authorship, and trust in a synthetic information ecosystem.

Taming AI 2022

Exhibition · Interactive · Machine Learning, Python, p5.js

An interactive performance and installation exploring human–machine control and the “taming” of artificial intelligence.

Berlin Stallwächter Party 2022

Commission · Live AV · TouchDesigner, MIDI, live audio

A live audiovisual visualisation commission — generative visuals performed live for the event.

intelligent.museum 2020 – 2024 · ZKM

Long-running research project

A multi-year research project developing AI-based applications for the museum context, including “smart signs” that generate interpretations of artworks — the technical and conceptual foundation for several Hertzlab installations, most directly Flatware, Hardware, Software, Wetware.

Memory Holes 2019

Personal project · Installation · openFrameworks & computer vision

An interactive installation exploring memory, digital amnesia, and surveillance.

Sangath Nov 2017 – 2018 · Quicksand

App design & development

An app created to improve problem-solving skills in adolescents with mental-health problems and to reduce symptom severity, in the form of an episodic adventure game across five levels in which the user plays different characters while completing their own POD journey — identifying problems, coming up with options, and taking action. A tilting-whiteboard mechanic lets users see the effect only on their own experience, turning the interaction itself into a reflection on perspective.

Bindu 2017

Personal project · Generative · Unity & Cinema4D

A VR experiential game — the inaugural work in a planned VR Art Series on modern Indian artists — mirroring the artist S. H. Raza's journey from inner conflict to creative clarity across four levels: focusing on a single dot (bindu) in childhood India; a jigsaw puzzle in mid-life France; completing one of Raza's abstract paintings on his return to India; and a navigable 3D cosmos extrapolated from his visual language. Built in Unity with assets in Cinema4D, in-house music blending Indian classical and ambient textures, and a voiceover drawn from Raza's own words.

Prayer Room 2017

Personal project · Installation · VR & photogrammetry

A VR installation studying Islamic geometric patterns and design: a Unity room whose walls reflect projected patterns into a meditative, walkable space (influenced by Anila Quayyum Agha), later extended by photogrammetrically recreating a 1700s Syrian prayer room preserved by the University of Pittsburgh, where users can sit, listen, and reflect surrounded by prayers and poetry.

The Last Fisherman of Bombay Nov – Dec 2017 · St+Art Festival, Mumbai

Commission · Graphic Design / Installation · Sassoon Docks (led by Quicksand)

An installation for the St+Art Urban Art Festival at Sassoon Docks, grounded in interviews with the local Koli fishing community. It imagined a dystopic, radioactive future Mumbai without manual fishing: a UV-lit submerged room belonging to “the last fisherman,” looking out at a relentless drone-inspired mechanical fishing sculpture, with a speculative zine as a takeaway. Drew thousands of visitors under the festival's “Art for All” free-entry ethos.

Dinosaurs in the Wild (Impossible Pictures) Jan – May 2017 · India

VR software development · Unity

Dinosaurs in the Wild, directed by Tim Haines, is a VR immersive journey taking audiences from the 21st century back to the late Cretaceous period. Working with the production company Impossible Pictures, developed the software in Unity running the on-site VR experience, allowing visitors to trigger events through gaze interaction.

Reflections 2016

Personal project · Installation · Max/MSP/Jitter & Millumin

A two-projector, two-camera installation on a tilted whiteboard, with an iPhone accelerometer sensing the board's angle and Max/MSP/Jitter plus Millumin processing the feeds. Different "recipes" mix inputs into outputs — one uses tilt to scrub through recorded video frame by frame; another layers live and delayed video into a double image whose delay is set by the tilt. Projected light bouncing off the board cast murky reflected figures onto the surrounding architecture, incorporated into the piece via a false wall; themes of privilege and the physical relationship between interactors emerged from only one side being visible at a time.

EVENTS, TALKS & WORKSHOPS

- Open Hertz Lab Communication to Mars with CWT.
- SzenenWechsel — performance at the ZKM, Karlsruhe (Oct 2023).
- Isle of Coding — ZKM summer program, Karlsruhe (Aug 2023).
- Coding AI — online talk, ZKM (Jul 2023).
- Celebration for Peter Weibel, "if you think you are sleeping you are awake" — ZKM (Mar 2023).
- The ZKM at the Kala Ghoda Arts Festival 2020 — Mumbai (Feb 2020).
- Eyemyth Festival (Jun 2017) — festival host; conducted a week-long AR workshop; and performed an audio-visual set with Japanese artist Soichi Terada.
- Performed an audio-visual set with audio artist Sunil Sadan.
- Weird Reality — organiser of the AR/VR conference at Carnegie Mellon University (2016).

PUBLICATIONS

- "warum ki unsere museen intelligenter macht" — brochure, ZKM (2024), contributor.
- "BioMedia. The Age of Media with Life-like Behavior" — exhibition catalog / anthology, ZKM (2023), contributor.

EDUCATION