

Mrinalini Singha

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Education

- Massachusetts Institute of Technology** 2022 - 2024
M.S. Art, Culture & Technology
Thesis: Disrupting Monocultural Tendencies through Multimodal Montage
- The National Institute of Design Ahmedabad** 2016 - 2021
B.Des. Film & Visual Communication | Ford Foundation Fellow
Thesis: Navigating through the folklore and film of Kotgarh Illaka through an Ecofeminist Perspective
- The Royal Academy of Art (KABK) The Hague** 2019
Exchange Semester in Interactive Media Design

Awards & Fellowships

- ACM CHI Student Game Competition Winner (2024)
- Ars Electronica IDSA Founding Lab (2023)
- MIT Design X Fellow (2023)
- KC Mahindra Fellow (2022)
- Ford Foundation Fellow (2020-2021)

Industry & Research Experience (4+ years)

- Social and Ethical Responsibilities of Computing (SERC) Scholar MIT** Oct 2023 - Present
- Conducting research on political ecology and discard studies of computer hardware life cycles, cloud-computing, and e-waste within the Computing and Climate Justice Group.
 - Focused case-study into the informal recycling ecosystem in India and potential futures.
 - Contributing to climate justice toolkits for speculative workshops.
- Research Assistant MIT Open Documentary Lab** Sept 2022 - Sept 2023
- Contributed to [Worlding 2022 & 2023](#) an initiative by MIT and Unity Technologies exploring climate futures, speculative design, and game-engine technologies.
 - Managed over 500 data points (projects, literature, organizations), conducting qualitative research, data collection, literature reviews, and analysis.
 - Assisted in organizing the Indigenous Immersive Incubator 2023, fostering engagement between indigenous XR creators and MIT.
- Creative Technologist Intern Deeplocal, Pittsburgh** June 2023 - August 2023
- Contributed to client projects for Google (including Google Cloud Next 2023 exhibits: [Wendy's Fresh AI](#) & [Google Vertex AI Postcards](#)), Netflix and Qualcomm.
 - Developed software and prototypes involving tangible interactions with generative AI models.
 - Programmed sensors and interactive components using Node.js and TouchDesigner for tangible AI interactions.
 - Built logging systems for debugging and benchmarking, and conducted usability testing with Google Vertex AI API.
- Design Researcher Alt News, India** Aug 2021 - Aug 2022
- Conducted foundational research on misinformation and hate speech in Indian media and politics, contributing to key reports.
 - Led user experience research and created fact-checking tools, prototypes, and educational toolkits for the organization's website and mobile app.
 - Produced video analyses of misinformation trends, contributed to educational tool-kits and branding.

Art Director *Government of Punjab, India*

Feb 2022 - April 2022

- Coordinated a team of 17 freelance illustrators to create over 200 visual assets showcasing India's cultural heritage and handicrafts.
- Managed design briefs, pre-production, and workflow to ensure a cohesive visual language for the project.

Film Director & Researcher *NID Ford Foundation Fellow*

Feb 2020 - Jun 2021

- Directed and produced *Bali - The Sacrifice*, a short fiction film inspired by a Himalayan folktale about a clan deity's origin myth.
- Led a multi-disciplinary team of 6 creatives, managing 20+ actors, fabricators, and external vendors through all stages of production, including pre-production, fieldwork, filming, and editing.
- Implemented participatory and co-creation workshops to incorporate local narratives and cultural authenticity in the film-making process
- Effectively managed project timelines, budgets, and operations, ensuring smooth coordination and successful delivery within constraints.

Exhibition Curator *National Institute of Design*

Oct 2019 - Nov 2019

- Curated NID's evolving pedagogy and student projects for the 2019 Hyderabad Design Week's Design Expo.
- Conceptualized the exhibit ethos: "Critical Design Starts from Asking the Right Questions," selecting radical student works.

Teaching Experience (2+ years)

Teaching Assistant *MIT*

Sept 2022 - May 2024

Assisted teaching four Graduate level courses at MIT:

- **Art and Agriculture** with Prof. Nida Sinnokrot (S'24)
- **Climate Visions** with Prof. Gediminas Urbonas (F'23)
- **Advanced Video and Related Media** with Prof. Judith Barry (S'23)
- **Introduction to Photography and Related Media** with Lect. Lara Baladi (F'22)

In these roles, I have:

- Developed course assignments and deliverables alongside the course instructor.
- Conducted workshops for classes and helped plan and execute student exhibitions.
- Held one-on-one meetings to discuss student projects and provide feedback.

Kaufman Teaching Certificate Program *MIT*

2023

- Participated in a wide range of workshops on university level pedagogy and curriculum design such as course design, creating inclusive classes and active learning strategies, prepared own syllabus and presented lessons.

Publications

Conference Proceedings

- C1** "A Mystery For You: An LLM Powered Fact Checking Game with a Tangible Interface" Haoheng Tang & **MS**; ACM CHI Conference, 2024.
- C2** "Re-Worldings at MIT of Beaver Terrapolis Terristories" **MS**; International Symposium on Electronic Art (ISEA), 2024.

Conference Presentations

P1 “Universities of the Future” **MS** et al.; Founding Lab, Ars Electronica 2023.

P2 “Roadmap for Building a Collaborative Ground Up Digital Community Archive” **MS**; Paper Presentation, Oral History Association of India (OHAI) Conference, 2022.

Journals

J1 “*WORLDING is a Verb: Co-Creating Climate Futures with 3D Game Environments and Community Wisdom*” Katerina Cizek, Marina Psaros, Srushti Kamat, Paisley Smith, **MS** & Vivek Bald; Leonardo, 2024 (under review).

J2 “*A Framework of Comparison: Peter Brook’s The Mahabharata and Dharamvir Bharati’s Andha Yug*” **MS**; Trellis Design Research Journal Vol 3, Issue 9, 2019.

Select Projects

A Mystery for You Student Game Competition Winner at *ACM CHI’24*

May 2024

- Designed a fact-checking game enhanced by large language models (LLMs) and a tangible interface.
- Developed unique HCI gameplay that combines generative scenarios for sequential, investigative play with the affordances of slow media to invoke more thoughtful and embodied interactions.
- Considered the implications of algorithmic bias and the potential of utilizing such role-play as a diagnostic tool for further inquiry.
- Technical Implementation: Programmed in Node.js and React to create a custom program designed utilizing interactive prompt engineering via an OpenAI API. This also involved physical programming of Arduino boards and electronic circuitry for a custom-fabricated game interface.

Sofdesk Selected and Incubated at *MIT Design X*

Dec 2022 - June 2023

- Concepted and prototyped a series of customizable, tangible and soft HCI products designed with diverse users in mind.
- Conducted user-studies through in-depth interviews and co-design methods for needs assessment, defining pain-points and user journeys.
- Conducted market research and business modelling as part of a rigorous venture design process.

Stata Island Selected for *ISEA’24*

June 2024

- A whimsical interactive virtual world that explores the indigenous and institutional histories of the land on which MIT is built.
- Its accompanying paper “Re-Worldings at MIT of Beaver Terrapolis Terristories” is both a decolonial critique as well as a call for the potential of immersive game technologies.

Himalayan Folk Collective Co-founder

March 2021 - Present

- Engage in archival and revival efforts of folk culture.
- Built a participatory web archive for collecting regional folktales.
- Experimenting with AI NPCs (non-player characters) and game engines for cultural heritage experiences testing in InWorld AI and Unity 3D

Rural Design Challenge *Lucitopia, China*

May 2019

- Conducted field research in Xixi Valley on the revitalization of the rural region.
- Repurposed Mahjong game-play as a collaborative design thinking tool and facilitated workshops for cross-age and cross-linguistic collaboration.

Exhibitions & Screenings

- Exhibitions**
- Solo *"Forensic Artifacts of a Democracy in Crisis"* Exhibition, at MIT ACT Student Gallery (2023)
 - Group *"Counteractions Show"* Group Exhibition at Distillery Gallery, Boston (2023)
 - Group NID Exhibition Hyderabad Design Week (2019)
- Screenings**
- MIT Museum (2023)
 - MIT Media Lab (2023)
 - Mumbai International Film Festival (2022)
 - Alpavirama Film Festival, Ahmedabad (2022)
 - International Cultural Artifact Film Festival: Semi-Finalist
 - News Fest Film Festival: Best Int. Student Film (2021)
 - Chhatrapati Shivaji Film Festival, Pune: Best Film (2019)
 - Urban MediaMakers Film Festival, Atlanta (2019)
 - Little Mexico Film Festival: Film (2018)

Key Competencies

- Software**
- Adobe Creative Suite (Premiere Pro, After Effects, etc.)
 - Unity 3D
 - TouchDesigner
 - Figma
 - Cinema 4D
 - Blender
 - AR Core
- Programming**
- JavaScript
 - Node.js
 - React
 - Python
 - HTML/CSS
 - Google Vertex AI
 - Google Colab
 - Python
 - \LaTeX
 - AI API Integrations
- Hardware**
- Physical Computing
 - Arduino
 - Raspberry Pi
 - Sensor Integrations
 - Prototyping
- Certifications**
- CITI Humanities Responsible Conduct of Research
 - MIT Kaufman Teaching Certification
 - Google Foundations of UX Design