

Chuanlin (Cinta) XIA

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SUMMARY

Designer-researcher exploring multisensory learning through music, interactive media, and participatory design. Bridging creative technology and cognitive science to build inclusive, embodied learning systems.

EDUCATION

University of North Carolina at Chapel Hill | Chapel Hill, NC

Aug. 2026 - May 2031 (Expected)

Doctor of Philosophy (Ph.D.) in Information and Library Science

Harvard University | Boston, MA

Aug. 2024 - May 2025

Master of Education (Ed.M.) in Learning Design, Innovation, and Technology, Concentration in Art and Learning

Berklee College of Music | Boston, MA

Sep. 2020 - May 2024

Bachelor of Music, Double Major in Contemporary Writing & Production and Professional Music, Minor in Private Studio Teaching

FEATURED PROJECTS

SENSORIA - Community Learning Initiative

Oct. 2024 - Present

Co-Founder

Cambridge, MA

- Launched multi-sensory community workshop series integrating sound, visual art, and movement practices.
- Facilitated eight workshops for mixed-age participants: four Deep Listening sessions (Boston Common, Spectacle Island, and Indoor location, 8 participants each) and four visual-art sessions (leaf printing, totem painting, 10-15 participants each).
- Applied participatory design research frameworks to ensure inclusive engagement and accessible technology integration.
- Measured learning outcomes through post-session qualitative surveys, confirming participant gains in attentive listening, spatial awareness, identity articulation, and creative expression.
- Established community partnership with Tzu Chi Foundation and managed program logistics including budget planning and sustainable revenue-sharing models.

MeloGo: Gamified Interactive Music Learning Platform

Sep. 2024 - Present

Co-Founder & Creative Director | Advisor: Professor Karen Brennan

Project: <http://studio.gse.harvard.edu/melo-go-an-educational-music-game>

- Designed play-based interactive music game enabling children (ages 6-12) to create layered musical grooves by mapping recorded environmental sounds to musical roles (e.g., lamp click → hi-hat).
- Engineered adaptive pedagogical mechanics (listen → find → mimic → compose) with seasonal/thematic level progression to enhance exploratory motivation.
- Implemented multi-entry pathways aligned with Universal Design for Learning: tap-to-play presets, record-and-replace for custom sound integration, and call-and-response scaffolding leading to free composition.
- Evaluated animation prototype with mixed-experience learners, collecting completion rates and retry points to refine rhythm density and level sequencing.

MeloMind: Music-Based Emotional Regulation APP

May 2023 - Present

Berklee College of Music | Advisor: Assistant Professor Cristi Catt

- Prototyped Interactive Experience Game leveraging music's dynamic nature to help users navigate and articulate emotions.
- Designed four core functionalities: mood-based music selection, personalized text feedback, mindfulness-based paced breathing with visual timers, and recordable Happiness Diary.
- Scaffolded emotional exploration by translating emotional imagination into musical expression through Gendlin's Focusing methodology.
- Tailored experience to diverse audiences through icon-based music system with user-generated mood tagging.

MVN Music: Immersive Deep Listening Educational Environment

Jan. 2025 - May 2025

Massachusetts Institute of Technology (MIT) | Advisor: Professor Tod Machover

- Captured ski-resort soundscapes and transformed everyday environmental sounds into compositional material for deep listening practice.
- Developed head-tracked ambisonic audio system using Waves 360 headset, enabling 360° spatial audio where head rotation dynamically shifts sound direction.
- Designed educational experience guiding participants through deep listening methodology: noticing subtle environmental sounds, attending to spatial acoustic details.
- Validated through participant feedback that individual auditory perception is highly unique.

Interactive Digital Library Learning System

Jan. 2025 - May 2025

Massachusetts Institute of Technology (MIT) | Advisor: Professor Ben Fry

- Designed data-visualization-driven discovery system for children's digital library, comparing spatial "bookshelf" layout with traditional 2D list/grid.
- Built Java-based visualization engine using spine-like thumbnails and topic clusters to leverage spatial memory.
- Instrumented system to track user behavior (time-to-select, exploration depth), evaluating how visual design improves choice efficiency.

Holographic Light-Wave Educational Installation: Perceptual Physics Education

Sep. 2024 - Mar. 2025

Massachusetts Institute of Technology (MIT) | Advisor: Professor Seth Riskin

- Created interactive installation exploring visual perception through hands-on manipulation of light using transparent films, reflective surfaces, and diffractive gratings.
- Bridged art and science through inquiry-based STEAM approach where participants moved from making to observing to understanding optical principles.
- Engaged visitors through movement-based interaction where participants varied viewing angle, distance, and eye level.

Kinnect: AI-Mediated Parent-Child Communication System

Sep. 2024 - Dec. 2024

Harvard Graduate School of Education | Advisor: Professor David Dockterman

- Researched communication barriers for bullied middle-schoolers through qualitative interviews with parent-child pairs.
- Built functional Figma prototype with end-to-end conversation flow: suggested topics → guided chat → child check-in → parent reflection.
- Authored AI prompt library mapped to common themes and conducted formative user tests with parents to refine tone and usability.

RESEARCH EXPERIENCE

Puerto Rico Field Study: Community Art and Post-Disaster Educational Resilience

Dec. 2024 - Mar. 2025

Harvard Graduate School of Education | Faculty-led Field Study | Advisor: Professor Raquel Lynne Jimenez

- Conducted ethnographic research examining community art practices supporting educational resilience post-disaster through participant observation and semi-structured interviews.
- Co-created community art zine as participatory research dissemination method.
- Discovered that participatory design emerged as core mechanism sustaining community educational identity.

AI Companion for Left-Behind Children in Rural

Sep. 2024 - Jan. 2025

Harvard Graduate School of Education | Advisor: Professor Amin Marei

- Designed a structural configuration and workflow of AI-powered educational support system using Figma to foster emotional connections for children in rural China.
- Applied Universal Design for Learning and Culturally Sustaining Pedagogy frameworks featuring AI-powered plush toy.
- Conducted pilot testing tracking opt-in usage, completion of emotion check-ins, and caregiver/teacher follow-ups.

Case Study: Music-Language Emotional Mapping

May 2023 - Sep. 2023

Berklee College of Music | Advisor: Professor Libby (Elizabeth) Allison

- Explored correlation between music and language in expressing emotions through experimental gaming activity where participants transformed sentences into musical compositions.
- Analyzed patterns using statistical and qualitative methods, revealing how individuals unconsciously utilize music to convey meaning and regulate emotional states.

Tuning into Reframing: The Role of Music Education in Fostering Artful Perspective-Shifting

Jul. 2023 - Aug. 2023

Cambridge University | Advisor: Associate Professor Tyler Denmead

- Searched music education's role in fostering perspective-shifting and critical thinking, focusing on interpretive approaches.
- Applied social identity theory and cognitive flexibility frameworks to analyze "reframing" as pedagogical mechanism.
- Found that perspective-shifting in music learning transfers to adaptive problem-solving beyond music.

WORK EXPERIENCE

The Electronic Classroom

Aug. 2023 - Aug 2026

Social-Emotional Learning (SEL) Teacher

Remote

- Designed culturally-responsive SEL curriculum for international K-5 students using evidence-based pedagogical frameworks.
- Facilitated collaborative curriculum development with international teaching teams across multiple cultural contexts.
- Delivered synchronous online lessons across time zones, managing cross-cultural communication challenges.

AWARDS & RECOGNITION

MIT Museum Gallery Public Exhibition (2025): Interdisciplinary visual arts and neuroscience educational installation

Berklee College of Music Merit-Based Scholarship: \$15,000 annually for outstanding academic achievement (2020-2024)

Dean's List Recognition: Consistent academic excellence and educational leadership (Multiple Semesters, 2020-2024)

SKILLS

Technical: JavaScript (p5.js), Python, Max/MSP, Unity, DSP, Figma (interactive prototyping), UX Design & Usability Testing, Rapid Prototyping (lo-fi → hi-fi), Ableton Live, Pro Tools, iZotope RX, Adobe Illustrator

Research Methods: Mixed-methods experimental design, statistics (SPSS), qualitative data analysis (NVivo), user experience research

Learning Sciences: Universal Design for Learning (UDL), Social-Emotional Learning (SEL) program development, accessibility integration

Languages: Chinese (Native), Cantonese (Fluent), English (Fluent)